BUTANE-PROPANE News

STACK JANUARY, 1954



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Headquarters for L.P. gas Information Since 1931

TECHNOLOGY



mean HAPPY NEW YEAR ...

Anchor's increased facilities mean a happy new year for Anchor Contract Customers because: More plants mean more LPG available to sell . . . and more satisfied users of highest-quality Anchorgas. More tank cars mean dependability of deliveries to fill expanding needs. Three huge underground storage installations (with more to come) mean large reserves of LPG for peak-load demands. And, their strategic locations mean fast deliveries to any point in the United States.

Make SURER of a happy new year in 1954 . . .

call Anchor about a year-round contract . . . ANCHOR PETROLEUM COMPANY, Telephone 2-7261.



ANCHOR

PETROLEUM COMPANY . TULSA

SALES OFFICES: DES MOINES • OMAHA
TOLEDO • HOUSTON • LOS ANGELES • ATLANTA
WESTFIELD, MASS. • MIDLAND, TEXAS

made for YOU!



your maintenance costs are lower because of the extra care with which Hackney Cylinders are prepared for painting—and the extra bottom head protection assured by special Hackney service-tested undercoating.



your packetbook collects the savings every time you handle lightweight Hackney Cylinders.



your operations run more smoothly—thanks to the rugged, quality construction of Hackney Cylinders.



your customers appreciate the extra safety and neatness of Hackney Cylinders.



your business benefits through the years from the extra service life built into Hackney Cylinders.



Model RC-100A



Hackney containers for gases, liquids and solids



LP-GAS CYLINDERS

LOW TARE WEIGHT -saves distributing and handling costs.

ENDURING STRENGTH -for years of economical service.

STREAMLINED SHAPE—neat and attractive.

ACCURATE STAMPING -always easy-to-read.

TWO-PIECE CONSTRUCTION —eliminates head and longitudinal seams.

HEAVY-DUTY FOOT RING —welded all around—properly vented.

SERVICE-TESTED UNDERCOATING -protects bottom head against corrosion.

SCIENTIFICALLY HEAT TREATED -for maximum strength.

FULLY TESTED -meet all safety requirements.

UNIFORM —in size, weight and capacity.

No wonder Hackney Cylinders are the most popular in the whole LP-Gas Industry!

Write teday for complete specificati



PRESSED STEEL TANK COMPANY

Manufacturer of Hackney Cylinders

- 1487 S. 66th St., Milwaukes 14
- 52 Vanderbilt Avenue, Room 2099, New York 17
 227 Hanna Bldg., Cleveland 15
- 552 Reosevelt Bidg., Les Angeles 17
- 936 W. Peachtree St., N.W., Room 112, Atlan 208 S. LaSalle St., Room 790, Chicage 4 18 W. 43rd St., Room 13, Kansas City 11, Me.

- Dept. BP-Downingtown, Pa.

BUTANE-PROPANE News

VOLUME 16 • NUMBER 1

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Executive

Jay Jenkins, President and Publisher Paul Lady, General Manager D. Newlon, Advertising Manager Stanley K. Siwek, Circulation Manager Gilbert Bowman, Sales Promotion Gene Masters, Research

Editorial

Lynn C. Denny, Executive Editor Carl Abell, Editor Roy A. Dempsey, Managing Editor Lester L. Luxen, Technical Editor Louise Longacre, Products Editor Raymond A. Grote, Art Editor

Publication Office

Los Angeles (57)—198 So. Alvarado St. Phone DUnkirk 7-4337

Advertising Offices

New York (36)
11 W. 42nd St., Room 774
Peter Wile, District Mgr.
Phone CH 4-1969

Chicago (1)—333 N. Michigan Ave. Wm. O. Dannhausen, District Mgr. Phone FRanklin 2-4615

Cleveland (15)—1836 Euclid Ave. Frank J. Enright, District Mgr. Richard L. DeMuesy, Asst. District Mgr. Phone PRospect 1-4584

Tulsa—P.O. Box 4055 Craig Espy, District Mgr. 2441 E. 25th Pl.—Phone 7-9807

Los Angeles (57)—198 S. Alvarado St. Victor C. Howard Phone DUnkirk 7-4337

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its a pleasure

AGAIN THIS



... to do business with WARREN

It's the sure way to start the New Year right . . . with the pleasure of KNOWING your supplier has the PRODUCTION . . . the STORAGE . . . and the TRANSPORTATION . . . to assure you of prompt, dependable deliveries of WARRENGAS in any season of the year.



SALES OFFICES

LOUISVILLE, KENTUCKY
MOBILE, ALABAMA
ST. LOUIS, MISSOURI
HOUSTON, TEXAS
FT. WORTH, TEXAS
MIDLAND, TEXAS
NEW YORK, N. Y.
OMAHA, NEBRASXA
MADISON, WISCONSIN
COLUMBIA, SOUTH CAROLINA

WARREN PETROLEUM CORPORATION . TULSA, OKLAHOMA

JOHN WOOD gives



JOHN WOOD WATER HEATERS are t official Mrs. America WATER HEATERS!

The Mrs. America Contest offers A.G.A. member companies a golden opportunity to sell the efficiency and economy of GAS to every "Mrs. America" everywhere. Aggressively promoted, the Contest can be the means of gaining maximum exposure for every Gas Appliance on the selling floor.

You can make good use, too, of John Wood's "Mrs. America Promotion Package"... because it has been designed to help you sell GAS.

You are cordially invited to use this promotion material. It includes the loan of a print of John Wood's famous color movie, "Servants on Tap."

Write . . . or ask your John Wood Representative.

and JOHN WOOD gives you

PRODUCTION MODELS SELLING FEATURES

National Advertising! MORE Sales promotion materials!

...and for 1954
JOHN WOOD
introduces...

the new

GLASS-LINED

JOHN WOOD

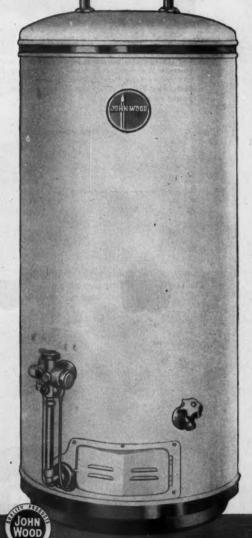
MERION PENFIELD

deluxe Automatic GAS WATER HEATERS

NOW — JOHN WOOD, manufacturers of dependable quality products since 1867, adds to its line of dependable water heaters the

finest glass-lined water heater anywhere!

NOW—JOHN WOOD leads the 1954 water heater parade! A complete line, with both galvanized and glass-lined tanks! Aggressive advertising and promotion, including a tie-in with Mrs. America, the Gas Industry's liveliest national promotion—everything you need to help you "Sell More in '54!"



Get the complete story of the "Mrs. America" Promotion Package!

JOHN WOOD Man!

Three Low Cost "Perfect Units...Custom Built tu



Lower Operating Cost

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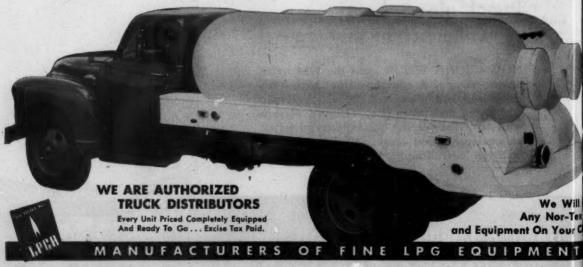
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Nat

Year after year, Nor-Tex Truck Tank users continue to up impressive records in economy, profitable pay loads low cost maintenance! Nor-Tex "Perfect Balance" and elimination of unnecessary bulk weight means lower cost, greater tire mileage, less chassis strain and less en wear. Nor-Tex Tank safety margins are far in exces code requirements.

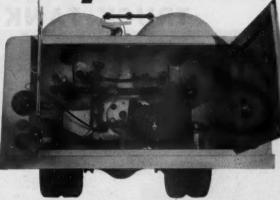
Higher Earning Ability

Through the years, Nor-Tex Package Units have pro their superior efficiency. With them you can load, de and dispense LP-Gas faster than ever before. Note full width boxes . . . the EXTRA room. Note the conven arrangement of fittings, valves, gauges and hose reels enable you to deliver more gas with less effort. Exclu piping permits full flow transfer into or out of tank.



alance" Package Package ut LPG Delivery Costs!

the tank right on down to the wheels and tires-Nor-Tex age Units are fitted for the job they have to do! Get immediate ry (completely equipped—ready to go) on any Nor-Tex Twin ne Unit (1250WG to 1800WG) mounted on new Reo, Ford, rolet, International or GMC chassis. These low cost Package include features not found in any other combination. Plumbed perfectly balanced, they come complete with Recessed Fuel and Viking KK190 Pump with Mechanical Seal, 50' Filler Hose, lights, Power Take-off with Spline Jack Shaft. The finish is num Paint over Red Oxide. White enamel and lettering slightly You can't beat these carefully planned Nor-Tex "Package for value.





or the average requirement you cannot beat Nor-ex Package Units! There's no danger of wasting oney on "too much truck" or sacrificing efficiency ith "too little truck" for your needs. They're factory atched to the job! Skillful engineering has made ossible these lightweight units, beautiful in appearnce with a minimum of skirting, and they're several undred dollars less than competitive units.



Nor-Tex Way

Finance the Balance

Balance Your

Load the

essary loading and unloading valves are located in the back compartment.



National Sales Agents for . . .

TEXAS TANK CO.

P. O. BOX 775

DENTON, TEXAS

Central 5416

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lote

els

CONSIDER "HIDDEN VALUES" MORE THAN OUTSIDE APPEARANCE and PRICE WHEN YOU PURCHASE A TRUCK TANK UNIT!



Look For and Demand the Best in Hidden Values

... Trinity is Proud to Call Your Attention to their "HIDDEN VALUES"...

- 1. Every Tank is baffled with as many as 15 7. Larger capacity—50 to 60 gal. fuel tanks
- 2. All cradles are bar-padded—no cut-out 8. Special hi-tensile steel is used to assure sections to weaken cradle.
- 3. Sumpers are either factory-made or heavy channel attached to truck frame.
- 4. So-called standard strainers are never used-only those with sufficient area and correct mesh as recommended by pump 10. Each and every unit is checked carefully, manufacturers.
- Pumps and meters are mounted with sufficient union connections for easy
- Piping is arranged with a very minimum of ells, tees and restrictions for better flow and operation. Heavy pipe hangers are used to eliminate stress and strain from vibration.

- buyers of the lightest and safest unit
- 9. Every unit is painted with two coats of expensive automotive white enamel over red oxide.
- before delivery, by qualified mechanics and engineers—assuring you of complete

Pictured is one of our "Hidden Value"
Units—Model No. 104—1400 WG,
twin-mounted on F600 Big 6 Ford,
complete with KK190 Viking Pump, complete with KK190 Viking Pump, Power Take-Off, plumbed completely, 50 gal. Fuel Tank, Excise Tax paid, 50 ft. ¾ " Filler-Hose, White Enamel, Directional Lights, ICC and large step light, Meter or Tool Compartment, Roomy Rear Platform."

F. O. B. Dallas \$4,029.96

Meter, LPG Carburetion, Fire Extinguishers Extra at Reasonable Prices. Financing Available.

Many "Hidden Value" Models available premptly—mounted on your chassis or ours. Write, wire or phone for descriptive literature and prices on Trinity Transports, Truck Tanks and the famous "Eveready" Gas System.

OMPANY TRINITY ETE

3301 SOUTH LAMAR STREET . TEL. HUnter 8321 . DALLAS, TEXAS

What's a Wholesaler's Salesman?

Somewhere in that golden land "buying men" inhabit—between the first blush of interest and the final inward satisfaction of goods well purchased, there dwells a man with a purpose—a salesman—a wholesaler's salesman.

This wholesaler's salesman is a composite of many things—a well balanced being who daily displays more enthusiasm, tempered with logic; deeper humility in harmony with personal aggressiveness; a greater friendliness throughout a longer day than anyone else on earth.

It doesn't matter much what he looks like or what he sells—a short man selling steel, a tall man selling books—one thing is for sure—he shares with all his brothers a common and demanding creed—to appear his best in the eyes of three people—his customers, himself, and his bose—in that order.

A wholesaler's salesman is a hard-working sportsman-like ball of energy bent upon the destruction of all things, real or imaginary, which stand in the path of consummating a well-planned sale or the creation of a happy and enduring customersalesman relationship.

About closing the tough ones-he cries "Cinch"



BUY FROM YOUR WHOLESALER

to his boss; "Luck" to his wife; but deep inside his true feelings pour out—the warm, good sense of pride that comes to a man by having done a job through plain hard work.

We all know that products are of little worth in the hands of their manufacturers. To have the success and magnitude of business as we know it today, the goods of one manufacturer must be combined, adapted and modified with goods from a second producer, and so on, in a never ending pattern. Products must move—goods must be sold. That's why wholesaler's salesmen are perhaps, collectively, the most important people we have. They sell more goods, create more wealth and exert a greater force upon the total economic greatness of this country than anyone imagines.

Wholesaler's salesmen are the wonder men of business—They drive more miles; eat more hurried meals; get fewer ulcers; meet more people; and remember names longer than anyone we know.

Wholesaler's salesmen are people who, when golfing with customers, should lose graciously by at least seven strokes; should enjoy catching trains on Sunday; and never be upset by shipments long overdue—A hero with a sales talk—The blood and thunder men of American business—That's today's wholesaler's salesmen.

When the last sale is made and life has resolved itself to comfortable, retired living; who among us has had a wider life—a life filled to the very brim with more of the stuff of richness—personal satisfaction, competitive living, constant challenge and rich, soul-satisfying reward—the wholesaler's salesman.

Copyright Wolverine Tube Division, 1953



WOLVERINE TUBE DIVISION

of Calumet & Hecla; Inc.

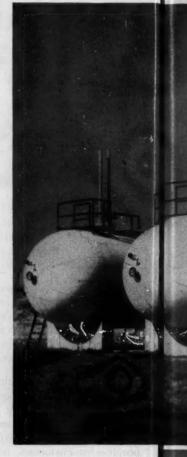
Manufacturers of Quality-Controlled Tubing

1453 CENTRAL AVENUE . DETROIT 9, MICHIGAN

X 2 2 2

Now all Beaird bulk storage tanks have shell seams 100% X-Rayed

Beaird tanks have long been known for their safe storage but now they are safer than ever. For it is our standard practice to X-Ray the shell seams on all tanks of 18,000-gallon capacity and larger. We don't just spot X-Ray the seams but completely X-Ray the entire seams. For example, on a 30,000-gallon tank, we expose over 200 separate X-Ray films. These are developed and each film individually inspected. With these X-Ray films, our inspectors literally lock through every inch of seam on the entire tank shell. This way they know the welding is sound. This is why we have gone to the expense of installing the most modern radiographic equipment — to assure you that the Beaird tanks you receive are engineered and manufactured for safe storage.



Beaird X-Rayed bulk storage tanks are made in 18,000-gallon and 30,000-gallon sizes. Other sizes available. Auxiliary equipment, including supporting saddles, platforms and walkways supplied on request. Ask your Beaird representative for delivered price on your bulk storage requirements - or write us direct.

THE J. B. BEAIRD COMPANY, INC.

Shreveport, Louisiana





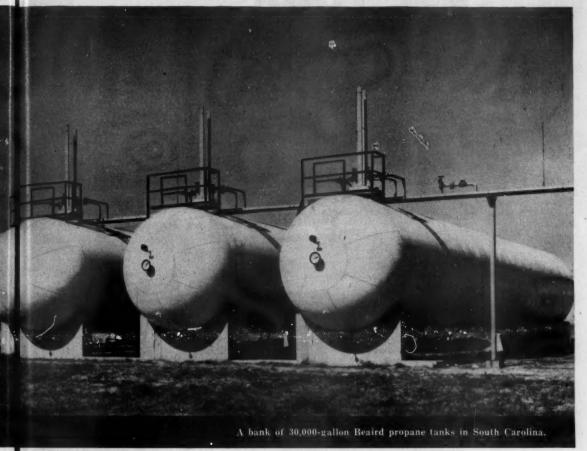








AS STORAGE



Other Beaird LP-Gas Equipment

"MOISTURE FREE" SYSTEMS — 150-gallon to 1000-gallon. Dehydrated to prevent winter freeze-ups and shipped with 25 pounds of dehydrated air. Nationally advertised in Good Housekeeping and leading farm magazines.

PACKAGED LP-GAS FILLING STATION — A beautifully designed complete unit with 999-gallon tank, dispensing pump and gallonage meter, and all piping, fittings and safety devices. Assembled at the Beaird plant on a steel skid base and painted with a gleaming white finish.

TRAILER TRANSPORT — Twin-tank LP-Gas transport 5200 or 6000-gallon. 5200-gallon size made for anhydrous ammonia. Manufactured to the same high standards as other Beaird LP-Gas equipment. Finished in white enamel to make an outstanding traveling advertisement.

PACKAGED BULK STORAGE PLANT— Single or multiple-tank storage plants are provided with compressors, piping, fittings, hose and all required accessories. Pipe layouts and foundation plans are supplied in advance of installations.

INCREASE YOUR KITCHEN GAS LOAD





ONLY REFRIGERATOR THAT MAKES ICE "CUBES" WITHOUT USING TRAYS—AND PUTS'EM IN A BASKET—AUTOMATICALLY!

Just as this brilliant new kind of refrigerator keeps ice "cubes" constantly at finger tip for the lucky owner...so too does the new Servel maintain a constant gas load. Gas consumption is as automatic as the amazing automatic ice-maker.

The new gas Servel has one of the greatest sales stories and reasons for ownership of any appliance... no moving parts in the freezing system! No motor to wear! A full 10-year warranty—a product pledge unequalled anywhere in the industry.

HERE ARE THE FEATURES HOUSEWIVES WANT— FOUND ONLY IN SERVEL REFRIGERATORS—

- Ice "cubes" without using trays—automatically!
- Separate freezer compartment—up to 80 lbs.!
- Automatic defrost-completely carefree!
- Butter keeper-full pound at right temperature!
- Adjustable shelves—more storage space!
- Door shelves roomy, wide, convenient!
- Trip-saver handle-opens at a nudge!
- 10 year warranty no moving parts!
- 3 appliances in 1—refrigerator, freezer, ice-maker!

THE IN WITH THE GREAT NEW SERVEL ADVERTISING DRIVE NOW!

MAIL THIS COUPON FOR FULL INFORMATION TODAY

VES

Want to be one of the first to get the facts

I want to be one of the first to get the facts

Servel program for 1954!

I want to be one of the first to get the facts

Address

REFRIGERATION and AIR CONDITIONING

Servel Inc., Evanville 20, Indiana

Grant Inc., Evanville 20, Indiana

Grant Inc., Evanville 20, Indiana

City

City

INCREASE YOUR KITCHEN GAS LOAD





ONLY REFRIGERATOR THAT MAKES ICE "CUBES" WITHOUT USING TRAYS-AND PUTS 'EM IN A BASKET-AUTOMATICALLY!

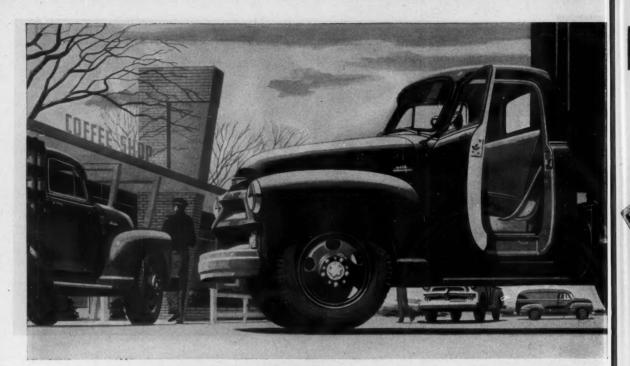
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- Ice "cubes" without using trays automatically!
- Separate freezer compartment-up to
- Automatic defrost—completely carefree!
- Butter keeper-full pound at right temperature!
- Adjustable shelves—more storage space!
- Door shelves roomy, wide, convenient!
- Trip-saver handle opens at a nudge!
- 10 year warranty no moving parts!
- 3 appliances in 1-refrigerator, freezer, ice-maker!

THE IN WITH THE GREAT NEW SERVEL ADVERTISING DRIVE NOW! MAIL THIS COUPON FOR FULL INFORMATION TODAY I want to be one of the first to get the facts 1954!
I want to be one Servel program for away!
Have my distributor contact me right away! nc., Evansville 20, Indiana fal Ltd., 548 Kina St. W., Toronto, Ontario



New 1954 Chevrolet Trucks

New Power! New Economy! New Features you want!

New Chevrolet trucks for '54 are here to do your hauling or delivery job faster, more efficiently and more economically.

To begin with, they bring you thrifty new power in all models. You save time on every trip with extra reserves of high-compression horsepower under the hood—and you enjoy greatly increased operating economy as well.

In addition, these great new Chevrolet trucks offer new and even greater dependability with increased ruggedness throughout the chassis. You'll find heavier axle shafts in 2-ton models... bigger, more durable clutches in light- and heavy-duty models... more rigid frames in all models. Pickup and stake bodies are plenty rugged, too—and they're roomier for '54!

But that's only the beginning! You enjoy new cab comfort, convenience and safety. Instruments are easier to read... controls are easier to reach. A new one-piece curved windshield gives you greater visibility. The new Ride Control Seat*lets you drive in relaxed comfort hour after hour, over all kinds of roads. Seat cushion and back move as a unit to "float" you over bumps without back-rubbing.

In another great advance, new Chevrolet trucks offer you the last word in no-shift driving ease and convenience. With proved truck Hydra-Matic transmission* you can drive all day and make door-to-door deliveries without shifting or clutching. Fact is, there is no clutch!

These are some of the many big new benefits awaiting you in the new Chevrolet trucks for '54. Why not plan to get the whole money-saving story at your Chevrolet dealer's soon! . . . Chevrolet Division of General Motors, Detroit 2, Michigan.



CHEVROLET ADVANCE-DESIGN TRUCK FEATURES THREE GREAT ENGINES—The new "Jobmaster 261" engine* for extra heavy hauling. The "Thrift-master 235" or "Loadmaster 235" for light-, medium- and heavy-duty hauling. NEW TRUCK HYDRA-MATIC TRANSMISSION*—offered on ½2-, ¾2- and 1-ton models. Heavy-Duty SYNCHRO-MESH TRANSMISSION—for fast, smooth shifting. DIAPHRAGM SPRING CLUTCH—improved-action engagement. HYPOID REAR AXLE—for longer life on all models. TORQUE-ACTION BRAKES—on all wheels on light- and medium-duty models. TWIN-ACTION REAR WHEEL BRAKES—on heavy-duty models.

DUAL-SHOE PARKING BRAKE—greater holding ability on heavy-duty models. NEW RIDE CONTROL SEAT*—eliminates back-rubbing. NEW, LARGER UNIT-DESIGNED PICKUP AND PLATFORM STAKE BODIES—give increased load space. COMFORTMASTER CAB—offers greater comfort, convenience and safety. PANORAMIC WINDSHIELD—for increased driver vision. WIDE-BASE WHEELS—for increased tire mileage. BALL-GEAR STEERING—easier, safer handling. ADVANCE-DESIGN STYLING—rugged, handsome appearance. *Optional at extra cost. Ride Control Seat is available on all cab models, "Jobmaster 261" engine on 2-ton models, truck Hydra-Matic transmission on ½-, ¾- and 1-ton models.

MORE CHEVROLET TRUCKS IN USE THAN ANY OTHER MAKE!

JAN

HOW RHEEM SELLS THE U.S.A ON COPPERMATIC!



Rheem starts'54 with a roar! Full-page, full-color ads announcing the Coppermatic Water Heater in LIFE, THE SATURDAY EVENING POST, BETTER HOMES & GARDENS, AMERICAN HOME and HOUSE BEAUTIFUL. Plus follow-up ads throughout the year in these same publications and in GOOD HOUSEKEEPING, HOUSE BEAUTIFUL BUILDING MANUAL and SMALL HOMES GUIDE.

Building Vanual

Plus local tie-in newspaper ads, TV and radio spot announcements and a wealth of point-of-sale display material and literature.

Cash in on this great new Rheem product and this aggressive advertising drive. Get all the facts now!

RUST PROOF

Rheem Coppermatic

AUTOMATIC STORAGE GAS WATER HEATER

you can vely on Rheem

A COMPLETE COPPER TANK Outlasts ordinary heaters in corrosion areas many times over. Can't rust—anywhere!



INSIDE A COMPLETE STEEL TANK— Both tanks have super-strong capsule shapes. Pressure-Proved at double the normal pressure!



HEATS QUICKER— Recovers faster! Delivers practically a continuous supply of hot water. Handsome, white steel cabinet fits kitchens, basements, closets.

RHEEM MANUFACTURING COMPANY

World's largest manufacturer of automatic storage water heaters

Sparrows Point 19, Maryland 7600 S. Kedzie Ave., Chicago 29, III. 1025 Lockwood Dr., Houston 20, Texas 4361 Firestone Bivd., South Gate, Calif. 800 Chealey Ave., Richmond, Calif. 3693 E. Marginel Way, Seattle, Wesh. CASH IN - Send coupon below!

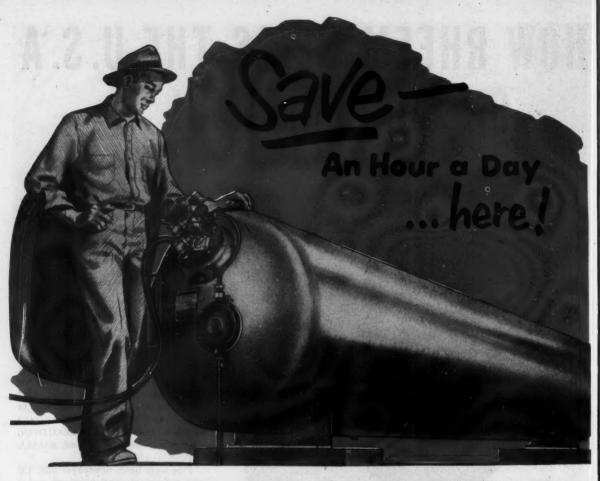
Send your request to nearest Sales Office, addresses of which are listed at left.

Please send me complete facts about Rheem Coppermatic profits, advertising and promotion.

NAME.

ADDRESS.

CITY. STATE.



A. O. Smith dealers report an average saving of at least one full hour per day in servicing our "Vapor Dome" systems. Why should your route men have to climb on top of a tank...just to hook up a filler hose, or to read a gauge?

Servicing is a "Breeze" with our Vapor Dome tank... with all fittings, relief valve, and Visible Float Gauge in the streamlined Vapor Dome at the end of the tank.

OTHER VALUABLE FEATURES

Bottom Opening...to assure you of a "water-free" tank...also can be used for motor fuel tank refilling, or as a bottle gas station.

Visible Float Gauges ... at "Eye-level" ... easy to read from standing position.

Filler Hose Easily Attached . . . no "Rough-edged" curb box for your hose to rest on while filling the tank.

Wolded Construction assures durability...long service life...as required by A.O. Smith exacting standards.

Guarantee in writing... attached to every tank when it leaves our plant... backed by the A.O. Smith Corporation, now in its seventy-ninth year of serving American Industry.

Regulator and pig-tall... installed so that gas leaving the houseline valve has direct downward flow all the way into service main.

Strategically warehoused . . . Direct delivery to your yard . . . Complete assortment of advertising material . . . Everything to help you sell the Vapor Dome System at a PROFIT!

A. O. Smith Liquid Gas Systems are available for early delivery in standard sizes up to 3500-gallon capacity. Orders for larger storage tanks accepted for future handling.



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A.O. Smith Corporation
Dept. BP-154, Milwaykee 1, Wisconsin

Tell me all about the profit advantages that can be mine as an A.O. Smith Liquid Gas Systems Dealer.

Firm

City Zone__State

Atlanta • Chicago 4 • Dallas 2 • Denver 2 • Houston 2 • Los Angeles 22 Midland 5, Texas • New Orleans 12 • New York 17 • Philadelphia 3 Pilisburgh 19 • San Francisco 4 • Seattle 1 • Springfield, Mass. Washington 6, D.C.

Address

Bump that assures positive results

When fire strikes, seconds count ... your fire extinguishers must be the right type and function properly from the very start ... failure means serious losses.

The growing popularity of the highly effective powdered dry chemical fire extinguishing agent may be hampered by a drawback...settling or packing can occur after a lapse of time. However, with C-O-TWO Dry Chemical Type Fire Extinguishers there's no chance of this happening.

The exclusive inverting and bumping design of C-O-TWO Dry Chemical Type Fire Extinguishers provides mechanical breakage of the dry chemical by shifting its position in the cylinder. This outstanding mechanical breakage, plus continuous inert gas pressured agitation or fluffing of the skillfully blended free flowing dry chemical, guarantee lasting, foolproof fire

No other brand on the market today gives you this extra margin for positive results. Inverting and bump-

ing is only one of many unique design advantages that make C-O-TWO Dry Chemical Type Fire Extinguishers your best buy for killing flammable liquid and electrical fires, as well as surface fires involving ordinary combustible materials.

With C-O-TWO Dry Chemical Type Fire Extinguishers the heat-shielding dry chemical is a non-conducting, non-abrasive, non-toxic, finely pulverized powder compound... blankets fire instantly. Sizes range all the way from 4 to 150 pounds capacity... all fully approved by the Underwriters' Laboratories, Inc., Factory Mutual Laboratories and Government Bureaus.

Act now for complete free information on these top quality, sure-acting fire extinguishers. Remember fire doesn't wait . . . get the facts today!



MANUFACTURERS OF APPROVED FIRE PROTECTION EQUIPMENT

Squeez-Grip Carbon Dioxide Type Fire Extinguishers
Dry Chemical Type Fire Extinguishers
Built-in High Pressure and Low Pressure Carbon Dioxide
Type Fire Extinguishing Systems
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C-O-TWO FIRE EQUIPMENT COMPANY

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C-O-TWO FIRE EQUIPMENT OF CANADA, LTD. . TORONTO 8 . ONTARIO

Sales and Service in the Principal Cities of United States and Canada

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Seattle Public Library



Best on the THREE IMPORTANT COUNTS!

Crowning over fifty years of range leadership, South Bend proudly presents its new 4000 Series Cafe Ranges... best on all three counts where a range must pay off! Stronger construction, heavier insulation, greater capacity... plus a host of operating advantages that make the 4000 family the most important news in commercial cooking.. Nine distinctive models in the South Bend quality tradition.

- welded, seamless construction. Dirt-tight welded joints, fusing a super-strong one-piece chassis, a seamless range body. No unsanitary crevices. Extra years of service are welded right into the range.
- 2 super insulated. Full 1" Monoblock insulation throughout means extraordinary gas economy. Heat radiation held to absolute minimum, insulation packs heat into the cooking, keeps the kitchen cooler.
- 3 largest, vapor-tight oven. The largest cafe range oven on the market... with no increase in outside range dimensions! Built on a thermos principle to prevent heat and moisture loss, reduce meat shrinkage.

Luminar Gray ... a beautiful high-gloss finish... is now available exclusively on new South Bend Ranges. This durable new finish is highly resistant to stain or discoloration, easy to keep gleaming bright. Ranges also available in Stainless Steel and Black Japan.

MALLEABLE STEEL RANGE MFG. CORP.
South Bend 21, Indiana

			局
Cafe Ranges	Charcoal Broilers	Gas Baking Ovens	Luncheonette Ranges
Heavy Duty Ranges	G	iddles S	m o m

Melleable Steel Range Mfg. Corp.
264 Cherry St., South Bend 21, Indiana
Please send me complete information about new South Bend Cafe Ranges.
Name
Address

O I em a dealer

South Bend COMMERCIAL COOKING EQUIPMENT

Blue

Conve

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says Walter H. Miller,
President
The Dri-Gas Company
A Division of Warren Petroleum Corp.

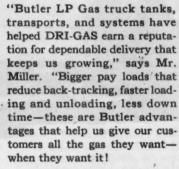
BUTLER equipment helps Dri-gas grow by giving customers outstanding service!"

A TOUALITY PRODUCT
A RELIABLE SERVICE

DRI-GAS bulk plant, El Paso, Illinois. Capacity is 60,000 gallons.



"Blue Belies are ideal for farm use. Convenient end fittings make instruments easy to read, and connections easy to reach." This is especially important when the liquid connection is made at the bottom of the tank to utilize LP Gas as tractor fuel.



"These customer-pleasing qualities, together with exceptionally low maintenance, also cut our operating costs to the bone. That's why we've made five Butler transports and fifteen Butler truck tanks the backbone of our LP Gas fleet. That's why

we are depending on Butler equipment as our business continues to grow.

"Our customers prefer Butler Blue Belles because these qualitybuilt storage systems give so many years of trouble-free service. We like them because of the convenient end fittings that speed our gas deliveries."

You too, can profit by teaming Butler truck tanks and transports with Blue Belle systems. This quality team enables you to provide dependable gas service for your customers at a low cost that leaves more profit for you. Write for more facts, today! Address the office nearest you.



"We ended costly back-tracking with 1600-gallon Butler truck tanks like this one servicing a commercial installation." End fittings make it easy to manifold 1,000-gallon Blue Belles to provide adequate storage for big users.

lews



BUTLER MANUFACTURING COMPANY

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Manufacturers of Oil Equipment • Steel Buildings • Farm Equipment • Cleaners Equipment • Special Products
Factories located at Kansas City, Mo. • Galesburg, Ill. • Richmond, Calif. • Birmingham, Ala. • Minneapolis, Minn.



The LMC incorporates all the desirable features of home delivery units in one model:

ECONOMY • HIGH PAYLOAD • SAFETY • SMART APPEARANCE



Buy on the LMC budget plan!

WRITE FOR ADDITIONAL INFORMATION, PRICES AND PAYLOADS

LUBBOCK MACHINE & SUPPLY CO

DRAWER 1589

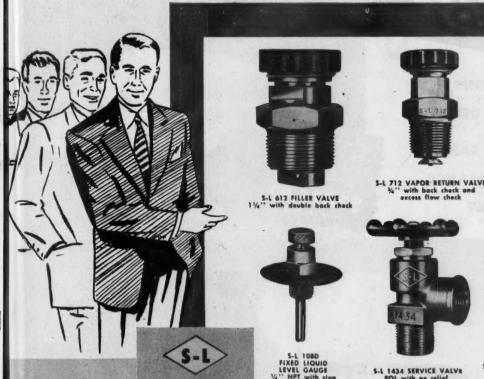
PHONE 3-4631

LUBBOCK, TEXAS



BUTANE-PROPANE News

LP-GAS Dealers everywhere specify S-L domestic tank valves for years of trouble-free service. ... and at no added cost.



ONE SOURCE FOR ALL L-P GAS VALVES DOMESTIC FUEL TANK VALVES

The tank builders' choice of an LP-Gas valve is a very significant thing. FIRST, his choice must reflect the dealers' wants. SECOND, his reputation for building a good serviceable tank is at stake. THIRD, with ever-mounting costs, every penny saved both on actual cost of the valve and the cost of installation are all important.

Check around in the territory a little and you'll soon quecover where the millions of S-L valves, gauges and fittings are going. They are going principally to LP-Gas tank and cylinder fabricators whose good name for reliable products depends to a surprising degree on the choice of valves and fittings.

You can't go wrong on S-L Valves. LP-Gas Dealers everywhere specify S-L domestic tank valves for years of trouble-free service... and at no added cost.

Whether you're a tank manufacturer or an LP-Gas Dealer you can obtain from one dependable source, Selwyn-Landers, every valve required.

For every type of LP-Gas tank or cylinder our equipment is designed for years of dependable service. If you do not already have our catalog and prices send for them today.

Also complete line of engine fuel tank valves.



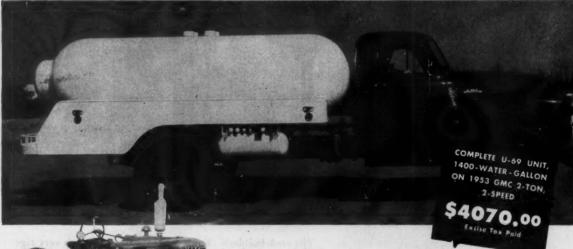
SELWYN - LANDERS COMPANY

4709 E. Washington Boulevard Los Angeles 22, California **Why Dealers Prefer**

AMERICAN

- LIGHT WEIGHT
 Highest Quality, High-Tensile Steel
- HIGH GAS DELIVERY
 Complete Units Feature Exclusive New
 "HI-FLOW" Style Piping
- MAXIMUM SAFETY
 To Meet or Exceed All Requirements
- PERFECT BALANCE
 Two Cabinets in Rear
- LOWER COST
 Compare Prices, Quality







Tractor-tailored tanks are complete with all necessary mounting brackets. Replace gasoline tanks. Write for prices and specifications.

Budget Financing as Low as \$974 DOWN to Qualifying Dealers

These beautifully designed delivery units are complete, ready for service. Equipment includes motor fuel tank, 50-foot filler hose assembly; power take-off; KK-190 Viking mechanical-seal pump; ICC lights; "HI-FLOW" piping. White enamel finish.

At Comparable Savings: "Better-Bilt" Units
Mounted on Your Own
Chassis—Piped Complete, or Set on Your
Truck Ready for Piping.

This Extra Equipment Available at Low Extra Cost: Carburetion, Vapor Hose Assembly — Neptune Meter, Tool and Meter Boxes on Side; Directional Lights. Complete Prices, Specifications and Budget Information Gladly Sent on Request,



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Next Time You're in Dallas Be Sure to Visit Our Modern New Plant and Air-Conditioned Offices on West Commerce. You're Always Welcome. merican TANK & MFG. CO.

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HERES WHY!

only HANDLEY-BROWN..

exchanger Type Combination Unit, "Reverse Air-Flow principle of operation provides amazing economy an exceptional dependability. It's the WATER-AIR fe heated air and hot water service unsurpassed.





The WATER-AIR provides even working temperatures; no more frozen pipes, icy floors or chilling conditions. Constant temperatures and piping hot water make the WATER-AIR an all around milkhouse health conditioner. Best of all, both heat and 30 gallon hot water service are provided automatically by this space saving appliance.

or 100 Other Uses

New Additions, Cottages, Motels, Clinics, Resorts, Garages and Service Stations are but a few of the many places where WATER-AIR services are demanded. The automatic room air temperature control can be placed anywhere heat is desired. Standard small size ductwork can be attached to the heated air outlet, to direct the heat flow wherever needed.



EXCLUSIVE DESIGN—Red Arrows show how air travels around the entire tank from bottom air inlets to the tank top. Tank heated air is then blower driven down the internal air tube to the finned Heat Exchanger, located directly over the 25,000 B.T.U. Burner. Burner and Heat Exchanger function automatically, providing over 120 Cubic Feet per Minute of torrid breezes whenever desired.

SHIPMENTS MADE DAILY-WRITE FOR INFORMATION OF ORDER TODAY!



HANDLEY-BROWN HEATER COMPANY

2502 BROOKLYN RD. JACKSON, MICHIGAN U.S.A.



burning brighter every day!

Butane-Propane dealers know that they can depend on Beacon for quality products, fast service and year 'round consideration — that's why Beacon has grown to a prominent place in the LPG field. Beacon's competent, courteous and experienced staff are always doing the "impossible" for their customers. Yes, Beacon offers a superior and friendly Butane-Propane service . . So when you need help in this direction . . . Look to Beacon!

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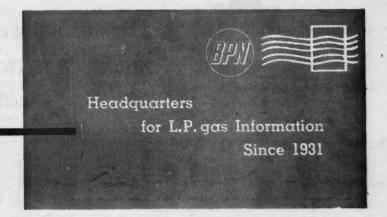
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LETTERS



Kansas

We are in need of some information. There is a housing unit in operation with 100 homes each heated with a 60,000-Btu wall furnace (most all manual control). All 100 homes have L. P. water heaters and 85 of the homes cook with L. P. gas. The outside wall construction of all the houses are the same 4-in. brick. The size of the houses are all 20 by 30.

This is being taken care of with a 30,000-gal. propane storage, set up with 5200 ft. of 2-in. line up to each individual line which is 1 in. with 6 oz. regulator and meter at each house.

The problem is that gas bills at some of these houses are as high as \$37 per month and some as low as \$11.50, which they and we think is too high for the houses with their propane costing them 11½ cents per gallon.

Do you think a vaporizer on the storage tank would equalize these bills and also cut down gas consumption? If so, what size equalizer would it take?

FZ.

We doubt if a vaporizer would have much effect on the amount of gas metered to each house.

Family living habits and the relative exposure of the houses to wind will usually be the reason for variations in the gas bills of the several units. Some families may maintain a lower room temperature, or be away much of the day, while other families maintain a high room temperature during the entire day and most of the night. This, coupled with cooking and water heating for several people, will use considerably more fuel.

Some meters may become defective. One or two of each extreme should be removed and checked for accuracy. If you are not equipped for this service, a nearby utility should be able to make the tests. Or, it is possible the meter manufacturer has facilities available near you.

Has a check been made to see if metered

totals for the 100 units compare favorably with the amount of fuel withdrawn from the storage? A careful inventory of fuel in storage should be made the same day, and as near the same time as that when the 100 meters are read. This should be done at each meter reading date. This practice will provide a good check. The total metered over a period should check closely with the inventory check.

If the difference between the two totals is not within 5%, then a thorough study of

the system and handling procedures should be made.

What figures are used to convert the number of cubic feet metered back to gallons? This will vary with the type of fuel; that is, relative amounts of butane and propane in the fuel.

After you have had an opportunity to check some of the above items, and obtain data on the quantities used, we would be pleased to help you analyze the problem further.—Ed.

Texas

Railroad Commission of Texas



AUSTIN,

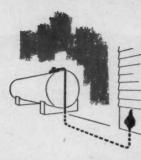
Editor:

We are enclosing a copy of the newly adopted Division IX of Liquefied Petroleum Gas Docket No. 1 which contains the rules and regulations governing L. P. gas filling stations in Texas.

Your article in the June, 1953, issue of "Butane-Propane News" was very helpful and was referred to many times before the final draft of the amendments was drawn. We realize that these new regulations are not perfect and may be changed somewhat in the near future. We would appreciate it very much if you would read them and give us the benefit of any comments or thoughts you might have for the safety of the general public.

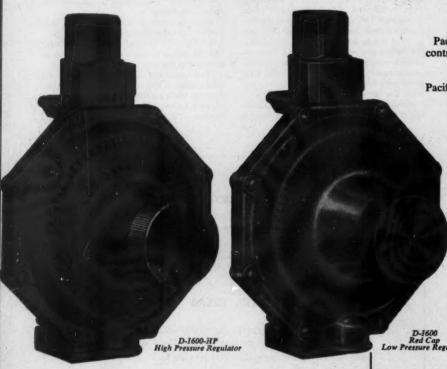
F. E. HARVICK Director.

(The article referred to was entitled "Planning the Service Station Bulk Plant," and dealt with storage, pumps, piping and dispensors. It was Article No. 6 in the Bulk Plant Series.—Ed.)



For maximum efficiency and minimum service, plan on two-stage regulation with the new

Pacific 'Hi-Lo' Twins



Pacific "Hi-Lo" Twins give you positive control at both high and low pressures to bring you two-stage regulation at its best. As a companion to the Pacific "Red Cap" low pressure regulator, model D-1600, Pacific announces its new high pressure regulator, model D-1600-HP. Each of these units have been carefully engineered to give positive performance and to assure maximum load capabilities. The new high pressure regulator has a capacity of well over 1000 cubic feet of gas per hour. Black paint is used on the low pressure "Red Cap" regulator for its heat absorption qualities. This high pressure regulator is painted bright red to signal high pressure.

ot

Ke

A Pacific high pressure regulator at the storage tank reduces pressure to 5 to 15 lbs. PSI. The second stage Pacific regulator at the house reduces pressure to 11" water column. The high pressure regulator has a full '4" diameter orifice which means less possibility of freeze-ups. Gas carried at higher pressures from the tank to the house permits use of a smaller line without pressure drop. Two stage regulation reduces the amount of fluctuation at the burners which is caused by temperature changes from summer to winter.

26

Two-stage regulation brings you these advantages

* MINIMUM FREEZE-UPS

* SMALLER FUEL LINES

* MORE EVEN PRESSURES

Write or wire for complete information

Pacific

INTERNATIONAL PRODUCTS, INC.

Virginia

We are extremely interested in obtaining general and regulatory information governing the repair and retesting of liquefied petroleum gas cylinders.

V.E.C.

The "Handbook Butane-Propane Gases" gives some information on the testing and retesting of L. P. gas cylinders. This information is in a chapter starting on page 97.

The Compressed Gas Association, 11 West 42nd St., New York City, has information on the proper procedure for making these tests.

Regulatory information can be obtained through the originators of regulations on I.C.C. L. P. gas systems, namely, Chief Inspector of the Bureau of Explosives, 30 Vesey St., New York City. The Compressed Gas Association and the Liquefied Petroleum Gas Association, 11 South LaSalle, Chicago, can also furnish information.-Ed.

Wisconsin

n

We wish to install two-stage regulation systems up to 500,000 Btu capacity.

High pressure regulators of the Fisher Type 67 and Type 722 V. H. both seem to be offered for this type

Since there is a large difference in cost, we would like to know if there is a preference in using one or the other.

B.O.

The selection of the proper type regulator will depend on your exact load and other factors.

The Fisher type 67 has a rated capacity of 200 cu. ft. per hour, which is about 500,000 Btu per hour. It is generally recommended, however, that it only be used on loads up to 250,000 or 350,000 Btu per hour. There is less chance of a freeze-up if water is present in the fuel on a regulator if it is operating at the lower rates.

The type 722VH is rated at 1200 cu. ft. per hour, or nearly 3,000,000 Btu per hour. Its large capacity and orifice make it less susceptible to freeze-ups.

Have you investigated Fisher's new type 64? This type has been developed just for the job you contemplate. It has a capacity of about 1,300,000 Btu and was developed for the 2-stage regulating jobs in the intermediate range. It should solve your problem best.-Ed.

Kansas

I have been having considerable trouble with an underground butane tank, which has been installed about 10 years. During rainy seasons the gas line fills up with water and, of course, all the appliances go out. The tank is on higher ground than the

building. When we have quite a hard rain, water comes up in the dome of the tank and gets into the gas line some way.

We have changed the regulator and have put a long vent pipe on the regulator with a goose-neck near the top of the dome. I believe the water must get in through the regulator. Do you know of any kind of regulator that we could use that would eliminate this?

I don't feel like putting my customer to the expense of buying an aboveground tank when his tank should take care of his needs for some time to come.

There are three possible ways in which the water may enter line.

1. From the fuel in the storage tank.

2. Through the regulator.

3. Through a leak or connection in the low pressure gas line itself.

Water in the gas from the storage tank may pass the regulator and be condensed in the line when cooled by evaporation or by the water surrounding the regulator and the gas line.

It is possible that the pressure of the water when over a foot deep may force its way into the regulator around the diaphragm. It is also possible that there is a small leak in the low pressure piping, either in the tank manway or underground between the regulator and the house. This can be checked by putting a pressure test on the piping and observing if the piping will hold the pressure. Check exposed joints with soap and water or a similar

Can you rearrange the piping in the manway so that the regulator is near the top where it will be less likely to become immersed in the water?

Check the fill and vapor return connections carefully. If they are covered with water too, some will be trapped in the fittings and forced into the tank when it is filled with fuel. If these fittings are under water during hard rains, it would help to put a pipe extension on each, to bring them up above the water level. Install a condensate leg in the low pressure line at the lowest point in the gas line so that any condensate which may be formed will run into it and be out of the way. (See attached sketch.)-Ed.

California

Is there a chart published showing weight per gallon of L. P. gases in a range of specific gravities from 0.500 to 0.700, and in an approximate temperature range of 20° F to 110° F?

Is there a similar chart for degrees A.P.I. for natural gasoline?

We do not know of any chart exactly like the one you desire, but you could develop one quite easily by using the correction factors given in the table of the N.G.A.A. Standard Volume Correction Factors published on page 51 of the "Handbook Butane-Propane Gases."

To determine the weight of the L. P. gas mixture at 60° F, multiply the specific gravity by 8, the weight of water per gallon at 60° F. For example, assume that you wish to know the weight of one gallon of L. P. gas mixture which has a specific gravity of .55 when its temperature is 40° F. The weight of the L. P. gas (a gallon) at 60° F will be 8.328 x .55 = 4.58#. The weight of a gallon measured at 40° F will be 4.58 x 1.025 (the correction factor opposite 40° F under the column .55 sp.gr.) = 4.6945#. The use of these tables is explained in the Handbook on page 50.

There are also charts in the Handbook by which similar conversions can be made and corrected. The specific gravity-degrees A.P.I. charts are on page 53. See also

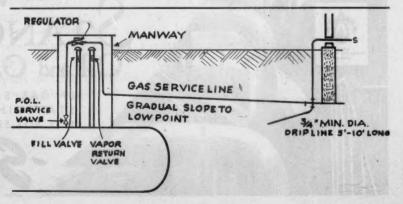
the table on page 52.-Ed.

Oregon

Do you have available a chart or graph that will give us Btu's per hour for 1 lb. pressure up to 50 lbs. pressure, with the drill sizes for the various pressures for L. P. gas?

The only chart which we have available is the one published in our "Handbook Butane-Propane Gases." "However, it is for low pressure and is not what you de-

The Eclipse Fuel Engineering Co., Rockford, Ill., is one of several companies which publish a chart for orifice determination at the higher pressures. These charts are generally made for a certain gas and have correction factors which can be used to determine proper orifice sizes for other







Editorial Comment

THE ANNUAL NFPA ESTIMATE of causes of fires, which is reproduced on page -- again gives our industry authoritative material for spiking the claims of the electrical industry that their service has safety advantages over LPG. This year, the tabulation goes a step farther in our direction, and sets up a classification in which the relative safety of gas and oil stoves and heaters is compared. In this same connection, we quote from "Fire News", the official bulletin of the NFPA:

"According to an analysis of fire deaths in dwellings made by the NFPA Fire Record Department, oil stoves are the greatest single cause of deaths from known causes of fires in dwellings.

"In an attempt to secure more concrete facts about oil stove fires, the NFPA is starting a special investigation. This involves subscribing to a special press clipping service to locate the fires which then will be followed by a special report form sent to the fire chief of the community where the fire occurred. It is the hope of the NFPA that through these efforts, a true evaluation can be made of the causes of these fires and steps can then be taken to reduce this serious loss of life."

ARE YOU WORRIED about the coming of natural gas utility systems to the towns in your service area? We recently received a clipping from the Talequah, Oklahoma TIMES of Oct. 29, 1953, on that very subject. Here it is:

"To Whom It May Concern:

"I am a butane gas dealer in DeQueen, Arkansas and its trade territory.

"In 1950 DeQueen installed a Municipal Gas System. This gas system was predicted to have an ill effect on my business, so naturally at first I was opposed to this program. But I have found that natural gas in DeQueen has had the opposite effect on my gas and appliance business. My business has been more prosperous due to the fact that it has made the people more gas minded. Ninety per cent of the tanks removed in town were resold in the rural areas.

"I have had to purchase additional equipment to take care of this increase in business.

"I am of firm opinion that a Natural Gas System will help any town and most all business therein, including butane gas dealers.

(Signed) EDWIN GRAY"

Ed

What a line for '54!

GENERAL DELUXE — Only water heater in America with famous General for faster heating, longer tank life. 20 to 100 gallons.

GENERAL SUPREME—With Everdur non-ferrous copper alloy

CAPTAIN.—High speed, fast seller in medium

CENTINEL — For consumer who must

HI-RATE—Large storage, heavy

BIG 4 BOOSTER—For unlimit

RECESSED WALL

comple line.

General

WATER HEATERS AND WALL HEATERS

are engineered for quality

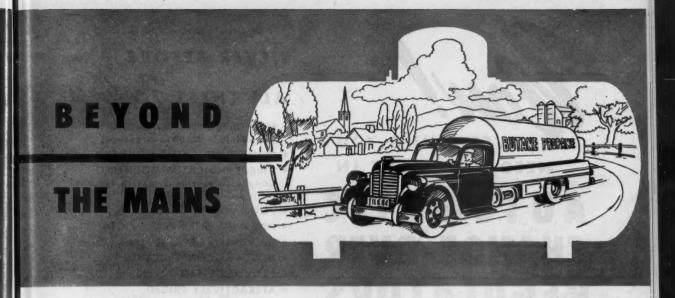
Maintaining these high standards has made General the quality leader for three generations. The General line will build business for you in 1954.

Get complete literature on the General line for 1954. Mail this coupon to GENERAL WATER HEATER CORP., care of Butane-Propane News, 333 N. Michigan Ave., Chicago 1, or 198 S. Alvarado St., Los Angeles 57.

NAME.

COMPANY

ADDRESS



Growth Means Opportunity

Once again we come to the season of the year when we pore over the figures of our industry, which are becoming big beyond the comprehension of mere mortals. But that does not really matter. The important point is that we have been gaining steadily.

The figures make one thing clear to all. They represent growth, and growth is opportunity. The total size of our industry means only that opportunity is available to more people.

Opportunity can not be considered in terms of an industry—it is personal and individual. It is for you, and me, and our associates. On the personal basis, opportunity has both breadth and depth. We can not consider "opportunity for profit" without linking that thought with "opportunity to serve" and "opportunity to work." Opportunity is actually created by responsibility and work, and profit follows.

There are men who believe that opportunity is limited by temporary economic conditions. There are others who believe that the only limitation is in the man—in what he is willing to accept as his personal limitation. Following every depression or recession in history, there have always been those who emerged with greater strength than before. They refused to slow down because business had slowed down. They gambled that humans were still human, and that most people would take it easy when the going got rough. Conditions that slow down the average man merely enlarge the opportunities for the man who will not be slowed in his pace.

1954 Will Be A Good Year For Sales

"Sell More in '54" is the keynote of business at the turn of the year. The economists tell us that while we are in a "buyers' market" which amounts to a mild recession, the earnings of our working population are still at the high level, and savings have reached an all-time high.

With plenty of goods, and plenty of money, all our customers lack is the immediate willingness to buy. Customer inertia can be changed into orders just as soon as the buyers can consider that the advantages to be gained from what we are trying to sell are worth more to them than the money.

"The advantages to be gained—" that is the key to the whole situation. In a seller's market we tend to take those advantages for granted. The desire to buy is already present, and we concentrate on merchandise as an end in itself, instead of as a means to an end. When the shoe gets on the other foot, we tend to continue selling merchandise. Just merchandise.

Nobody wants "just merchandise". Nobody ever bought an appliance just to have that appliance. Your customer buys a range to have the advantages that the use of that range can give her. She buys a heating plant to have the comforts of warmth. She buys a clothes dryer to have freedom from washday drudgery. Customers are interested in results. They want a better, more comfortable, more convenient life. If the results look more important to them than the money, they will buy.

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NEED AND WANT IN

AUTOMATIC CHANGE-OVER REGULATORS

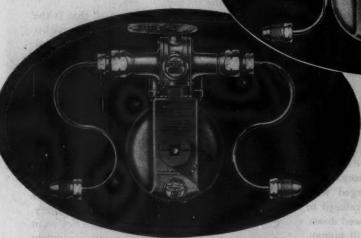
NEVER BEFORE ALL THESE Features

- NEW IMPROVED INDICATOR (Impossible to over-pressure)
- . REMOTE INDICATOR MOUNTING
- DIRECT INDICATOR MOUNTING Convertible from direct to remote indicator
- . POL X POL PIGTAILS
- POL X INVERTED FLARE PIGTAILS
- . INCREASED CAPACITY (300,000 BTU/HR)
- INTEGRAL CONSTRUCTION
- PROVEN DESIGN
- . ATTRACTIVELY PRICED

FISHER TYPE 926R (Specify 926 for Direct Indicator Mounting)

FISHER TYPE 928

(Specify 928R for Remote Indicator Mounting)



* The new automatic is truly "THE SALESMAN". It will work for you day and night for years providing better gas service. Through better service you will sell more appliances and more installations.

Let THE Fisher SALESMAN be YOUR Salesman.

FISHER GOVERNOR COMPANY . MARSHALLTOWN, IOWA

Eastern Office: 212 New Dickson Bldg., Westport, Conn.

LEADS THE INDUSTRY IN RESEARCH FOR BETTER GAS PRESSURE CONTROL

FISHER





WHAT is the outlook for the L. P. gas industry in 1954? Will more fuel and more appliances be sold than last year? What progress was made in 1953, and what does the past year's record augur for the new year just ahead? Is the industry's national promotion program shaping up into a vital selling force for 1954 and the years that will follow? And what's going to happen to the small operator—must he consolidate in order to grow and prosper? There are sign-posts that clearly point the way for the new year. Some of these more important signposts in the form of expert opinion, proven facts, and up-to-the-minute statistics appear on the pages that follow—to help you sell more in '54!





1954 Forecast of Business Trends

By Gene Masters Director of Research, BPN

During the months of November and December, 582 Distributor-Dealers with bulk plants in 47 of the 48 states replied to a special questionnaire sent out by "Butane-Propane News". The result of this survey has been compiled and the tabulations included in the following article provide a forecast of business trends to be expected in the year of 1954.

THE outlook is rosy for more LPG customers and more fuel sales in 1954. Eight out of 10 operators anticipate increases in both categories . . . individual estimates of the amount of increase ranged from 2% to 100%, but the great majority of dealers are looking forward to a 10% increase in LPG customers and a 12% increase in fuel sales in their areas during the coming year.

The 20 dealers who expect a drop in number of customers or in fuel sales were for the most part in areas which expect the arrival of natural gas in the next few months. Several were located in farming communities with heavy crop losses due to drouth during 1953.

The trend to increased plant storage capacity will continue in 1954... 26.8% of the distribution-dealers re-

porting that they plan to add storage averaging 21,400 gallons per plant during the coming year. Regional analysis of these returns indicated peak activity in added storage among distributor-dealers in the East North Central States, pointing to a heavy increase in bulk distribution in that area, and an eastward shift in the bulk LPG markets.

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Many dealers in the traditionally bulk LPG states west of the Mississippi advised that they are not adding storage to their own facilities during the coming year but are balancing their load factors by promoting larger consumer bulk systems. One midwestern operator is planning to install 200 consumer tanks of 1,000 gallons capacity in the next 12 months.

Only above-ground storage additions were requested in the report, but two companies in the West South

Which Appliances Will Show the Largest Dollar Volume in 1954? . . . the Greatest Sales Gain?

Appliances expected to bring in largest dollar volume in 1954										
Nation	lor	New England	Middle Atlantic	South	E.North Central	E.South Central	W.North Central	W.South Central	Moun- tain	Pacific
Ranges	35	55	46	66	35	49	20	46	15	25
Furnaces, Wall and Floor	30	22.	15	15	37	32	44	7	47	33
Space Heaters	23	_	12	27	19	38	25	9	29	27
Water Heaters	18	33	58	21	38	13	16	8	20	15
Carburetion	10				3	5	7	32	10	.8
Dryers	9	_	4	5	19	-	14	1	10	8
Air Conditioners	3		77		8	3	7	1	3	V SY
Refrigerators	3	_	_	-	2	-	2	7	7	6
Farm Equipment	3	_	4	2	2	_	2	7	3	4
Incinerators	1	_	4		3	REMOTE !	3	41.47	Ecological E	
Appliances expected to show greatest sales gains in 1954 over 1953										
Furnaces, Wall and Floor	22	22	27	22	37	22	23	. 8	. 27	20
Carburetion	19	_	4	8	12	14	16	39	25	21
Dryers	19	23	27	15	24	3	30	3	14	22
Water Heaters	18	44	42	23	19	19	14	. 11	24	15
Space Heaters	16	11	19	24	22	19	14	3	15	20
Ranges	13	. 11	4	23	10	32	- 11	16	10	11
Air Conditioning	7	-	_	5	10	3	13	10	3	-
Form Equipment	3	-	-	3	2	-	. 1	8	9	3
Refrigerators	2	-	_	. 2	2	-	1	4	5	13
Incinerators	2	_	4	2	2		3		2	

Central States advised that they are developing underground storage with a capacity of 1,000,000 gallons to be placed in operation soon.

The appliance picture, as reported by the dealers, is mixed. Reductions in farm income, electrical competition, price-cutting, have in some areas caused a drop in prospective sales. Current year-end forecasts of a "mild recession" during the coming vear may also have been a factor. since the appliance market is sensitive to variations in the general business climate. However, there are many dealers (75%) who anticipate 1954 sales at or above 1953 levels. For the most part, these are dealers who are actively merchandising a broad line of LPG-using appliances and are in a position to compensate for reduced volume in one or two items by increasing sales in others.

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Sectional Breakdown

The sectional breakdown of the appliance prospects for 1954 provides an interesting picture of the shifting emphasis on various lines. In the southern states, dealers are looking forward to a heavy volume of range sales... since this area is one of the oldest LPG-using sections in the U. S., this is indicative of a rapidly developing replacement market for sale of modern LPG ranges to replace obsolete models.

The heating market (floor and wall furnaces, and space heaters) looms as the brightest spot in the national LPG market for 1954...returns from nearly all areas place the heating appliances high on the list for largest dollar volume and greatest sales gains. The development of the heating market is particularly significant to the bulk distributor-dealers who are the only operators able to supply LPG at prices competitive with other fuels for heavy usage.

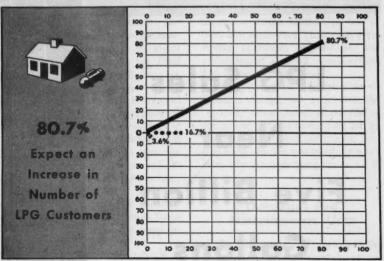
Carburetion and clothes dryer sales are also expected to make gains in nearly all areas during 1954.

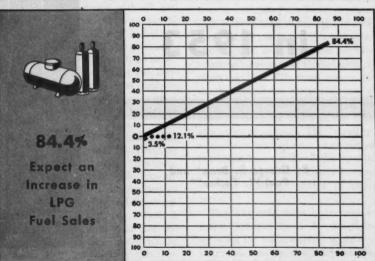
Summary: The opinion of the nation's distributor-dealers with bulk plants is that the LPG industry in 1954 will continue its unbroken 31-year record of annual increases in fuel sales and customers served. Evidence indicates that the year's end will see a gain in the number of homes using LPG for all cooking, water heating, refrigeration and space heating.

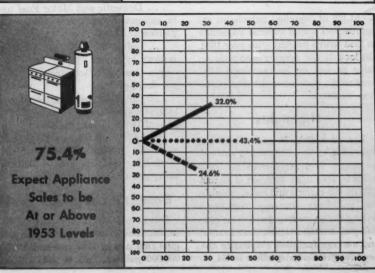
How do you expect LPG business in your area to be in 1954, as compared with 1953?



KEY --- Up in 1954 ----- Same as 1953 --- Down in 1954

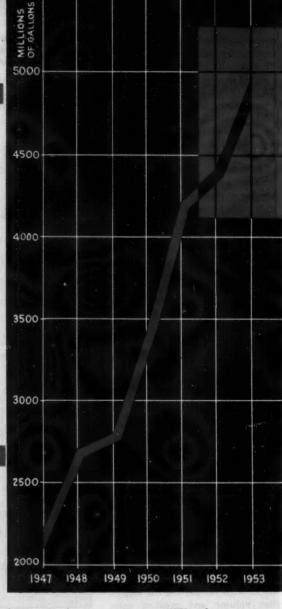






LPG Sales Near Five Billion Gallons in 1953

By George R. Benz* and Paul W. Tucker**



SALES of liquefied petroleum gas approached a new volume milestone in 1953 with a healthy gain over 1952. Outlook is for greater emphasis on sales backed up by increased LPG production and increased transportation facilities.

Highlights

The sales of L. P. gas in 1953 are estimated to be 4,920,000,000 gallons, or nearly 10% more than the 1952 volume. This is an increase of almost 443,000,000 gallons and nearly double the gallonage increase registered during the preceding year. New production, transportation, distribution and storage facilities emphasize the need for greater sales effort in '54.

. . . Domestic and Motor Fuel use is estimated "up" over 295,000,000 gallons or 11.2%.

. . . Industrial and Miscellaneous is down by nearly 3%.

... Gas Manufacturing or Utility use dropped 5%.

... Chemical use registered the largest single category increase by a gain of 16.6% during the year.

... LPG used for manufacture of synthetic rubber components (included for the first time in this report) gained 7.5%.

Domestic and Motor Fuel

Estimated sales of L. P. gas for domestic and internal combustion engine fuel use in 1953 reached 2,932,000,000 gallons. This is a 11.2% in-

crease over 1952 and represents a gallonage increase of nearly 300,000,000 gallons.

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As usual, the weather played a dominant part in the sales picture. The above average temperatures which prevailed throughout most of the year, and especially during the first and last quarters, reduced the demand of LPG for heating purposes and thus somewhat lowered the banner sales peak the industry might otherwise have easily achieved.

The industry enjoyed a good summer from a sales standpoint. There

^{*}Manager, engineering department Phillips Petroleum Co., Bartlesville, Oklahoma.

^{**}Technical Representative, engineering department, Phillips Petroleum Co.

are several reasons for this: (1) the tremendous amount required in the southwest for irrigation, (2) increased use as a tractor fuel, and (3) the filling of customer and bulk distributor's storage. The latter doubtless reflects to some degree the success of the efforts of the National Committee for LP-Gas Promotion, which has been advocating larger storage as one of its programs. This industry group, representing LPG distributors, dealers, producers, appliance manufacturers and equipment manufacturers continued its effective advertising and employee training programs in 1953.

House heating continues to increase, with more people in central and even northern areas discovering the comfort and convenience this fuel brings. The increase in bulk consumer installations and in farm or agricultural applications continued unabated throughout the year. Diversification of farm uses, including tractor fuel, stock tank heating, brooding, flame weeding, milk house use, and stationary engines, as well as use in the farm home, indicates increasing volume per installation as distributors sell the all-purpose advantages of L. P. gas. LPG continued to replace other fuels as the source of heat in the tobacco curing industry. This is particularly evident in the Connecticut River Valley and in the Carolinas. Crop dehydration is receiving more attention from the farmer. During the year several portable crop dehydrators using LPG as fuel appeared on the market.

During 1953 an estimated 450,000 ranges were shipped for use with

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LPG. This is an increase of 2% over the number shipped last year. While the ratio of gas range sales to electric range sales dropped from almost 2 to 1 to nearly 1.5 to 1, the water heater sales presented just the reverse picture, Automatic L. P. gas water heater sales are estimated to be about 285,000 units. The L. P. gas fired clothes dryer is proving to be very popular. Shipments of floor, space and wall type furnaces numbered over 400,000 units and represents about 20% of the total production of this type of gas-fired appliances. It is particularly interesting to note the active and increasing interest in L. P. gas as fuel for the warm air furnace. It is estimated that 7.5% of the warm air furnaces were for LPG. A noticeable percent of the conversion burners for warm air furnaces were for LPG.

While it is extremely difficult to "pin-point" the amount of L. P. gas used as engine fuel, it is conservatively estimated that this use alone required nearly 500,000,000 gallons in 1953, or almost 10% of the total sales. Spot surveys indicate that the consumption of LPG as internal combustion engine fuel in certain sections of the south and southwest is as high as 50% of the total LPG sales.

A recent survey indicates that about 2,000 buses will be operating on LPG by the end of 1953. One more major tractor manufacturer has announced the start of production of two of its tractor models factory-equipped to use L. P. gas as fuel. A major truck manufacturer has extended his line of LPG fueled trucks to some of the smaller models. An-

other major gasoline carburetor entered the LPG carburetion field during the year. Two new LPG motor fuel dispensers were unveiled this year. A survey of taxi companies indicates a strong interest in use of LPG as a motor fuel. This is due principally to longer engine life, less maintenance and oil consumption, and better performance.

One of the most surprising developments during the year was the "sudden" development of interest in the use of LPG as motor fuel for industrial tractors and lift trucks. Several of the major manufacturers are now offering factory-equipped L. P. gas models.

Industrial and Miscellaneous Uses

The amount of L. P. gas used for industrial and miscellaneous application is estimated to have dropped 2.9% during 1953. Actually, the drop in industrial use by itself is estimated to be down 5 or 6%, but the increase in miscellaneous uses tended to minimize the drop. The main reason for the reduction in industrial use of LPG is the extensions of natural gas lines or increases made in the capacity of existing lines. The "standby" sales for industrial uses were not up to normal because the relatively mild weather made it unnessary to operate the "standby" plants in many cases.

The railroads have expressed an active interest in L. P. gas flame weeding for maintenance of right of ways because preliminary studies



One of the relatively new, but rapidly growing, uses of LPG is for tobacco growing. This 500 gal. skid tank is supplying fuel to a curing barn in Connecticut.



The satisfied owner of an LPG fueled tractor talks with his fuel supplier. A recent survey showed 180,000 tractors, trucks, buses and stationary engines now operate on LPG.

and trials indicate that flame weeding is cheaper than chemical treating. The railroads are also watching with more than average interest an experiment of the Union Pacific with an L. P. gas-fired turbine locomotive. Its clean burning characteristics are of particular note.

Utility Use

Sales of LPG for gas manufacturing purposes are estimated to be 247,000,000 gallons—a decrease of 5% compared to 1952. There are two factors accounting for this decrease: (1) the above average temperatures which prevailed over large segments of the country during the year, and (2) the change-over to natural gas. The latter, of course, has been made possible by the completion of new gas transmission lines and the larger deliveries available in existing lines through addition of compressors and

loops. There has been little LPG sold this summer for "summer-fill" of standby plants due to the fact that very little was required out of storage during the winter of 1952-53.

It is interesting to note, though, that many new large housing developments are being served by L. P. gas through the mains simply because natural gas was not yet available in necessary quantities.

Chemical Manufacture

Sales of L. P. gas as a raw material for the manufacture of chemicals and chemical intermediates rose sharply, after a moderate increase the previous year, passing the one billion gallon mark. The estimated sales were 1,016,000,000 gallons, representing an increase of 16.6 percent over 1952.

Many factors combined to bring about this accelerated increase. Several large plants which began operations during late 1952 were in operation all year. Others were started up early in 1953, and operated most of the year. Higher refinery runs of crude oil, plus deeper cracking of the medium and heavier fractions, resulted in an increased supply of refinery gases containing LPG. Demand for petrochemicals remained strong during the year, and numerous compounds became available for the first time in tank car quantities.

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It has been estimated that 25% by weight of all chemicals produced in the United States during 1952 came from petroleum and natural gas sources, including LPG, and that this percentage will increase to 50% by 1965. The use of both methane and ethane as a base for petrochemicals is increasing rapidly and LPG will face increasing competition, especially from ethane, in this expanding market. Polyethylene is probably the

	177	a load		10	RKETED PRODUC	TION OF LFG	**					
DAF	Gallons (in thou.)	Per Cent Increase	Domestic & Motor Fuel*	Per Cent Increase	Industrial	Per Cent Increase	Gas Hfg.	Per Cent Increase	Chemical	Per Cent Increase	Rubber Components	Per Cen Increas
922	223		Sal	e of liques	ied petroleum	gas confin	ed primaril	y to bettle	ed .			100
923	277	24.4			gas busin	ess prior t	0 1928					100
924	376	36.0			1	1		1				
925 926	404	15.2				24/42/1/4/1				100		
927	1,091	134.6			1000	001.00					Cally J. S.	1 2
928	4,523	314.6	2,600		400		1,500					
929	9,931	119,6	5,900	126.9	1,500	275.0	2,500	66.7		1 11/1	1 2 - 1	1
930	18,017	81.4	11,800	100.0	2,200	46.7	4,000	60.0		-	1 - JH	
931	28,770	59.7	15,295	29.6	7,172	226.0	6,303	57.6			7/1-	
932	34,115	18.6	16,244	6.2	8,167	13.9	9,703	53.9		1		4
933	38,931	14.1	16,626	2.3	13,987	71.3	8,318 6,298	-14.3		Total Control	1000	NO FEE
934	56,427	36.2	17,681 21,380	6.3	32,448 47,894	47.6	7,581	20.4			The state of the	17
936	76,855	38.8	30,014	40.4	67,267	40.4	9,371	23.6		The state of		100
937	141,400	32.6	40,823	36.0	62,610	(4)	11,175	19.3	26,792		Charles and Sal	123
938	165,201	16.8	57,832	41.7	62,694	0.0	12,386	10.8	32,299	20.5		1
939	223,580	35.3	87,530	51.4	93,723	49.4	15,435.	24.6	26,892	-16.7		10 10
940	319,456	40.2	134,018	53.1	124,482	32.8	20,285	31.4	34,671	29.0	Marian Edit	VOSLIT-
941	462,852	47.7	220,722	64.7	172,669	68.6	25,255	24.5	44,206	27.5	1800	
942	585,440	26.5	303,857	37.6	197,179	14.2	31,366	24.2	53,038	20.0		Mill St
943	675,233	15.3	344,962	13.6	237,396	20.4	37,519	19.6	55,356	175.0	neulls are	11 37
944	898,071	33.0	445,617	29.2	254,590	7.3	45,879	17.4	151,985	47.5		
945	1,067,979	19.0	533,262 758,466	19.7	256,577 253,745	- 1.1	86,660	61.0	311,499	38.8	A TOP I THE	100
947	1,410,370	42.4	1 150 538	51.7	274,125	8.0	169,332	95.4	414,267	33.0	201,535	
948	2,736,801	25.0	1,150,538	28.1	275,883	0.6	237,638	40.3	524,350	26.6	225,641	11.9
949	2,836,599	5.9	1,627,550	10.5	247,103	-10.4	239,210	0.6	544,886	3.9	177,850	-21.1
950	3,482,567	22.4	2,022,464	24.3	355,456	(1)	251,694	5.2	624,468	14.6	228,485	24.7
951	4,227,275	18.4	2,456,804	21.6	269,408	(#)	261,692	11.9	844,507	35.2	374,864	64.5
952	4,477,379	5.9	2,636,736	7.4	338,959	26.0	259,697	- 7.8	870,990	3.1	370,997	7.5
953	4,920,000	9.9	2,932,000	11.2	326,000	- 2.9	247,000	- 5.0	1,016,000	16.6	399,000	1 103

*Household use plus other requirements by these customers such as irrigation pumping, tractor fuel, flame weeding, chicken brooding and similar uses. Includedalso is LPG sold by domestic distributors but used for industrial purposes. Included also, in 1951, 1952 and 1953 only, is LPG sold direct by producers and marketers solely for fueling internal combustion engines.

¹For all years prior to 1951, include LPG sold for refueling internal combustion engines.

²Not comparable due to segregation of chemical manufacturing.

³Not comparable due to change in method of reporting LPG sold for refueling internal combustion engines.

**L. P. gas used for manufacture of synthetic rubber components is included for the first time this year.

REMARKS: In this table total sales for all years except 1953 were obtained from U. S. Bureau of Mines reports. Distribution for the years 1931 to 1952, inclusive, was obtained from the same source. All other volumes were estimated by the writers. The total sales volume includes all LPG (propane, butane, and propane-butane mixtures) when sold as such. Until 1944 the sale of pentane when sold for any purpose other than motor fuel blending was included. Since then it has been excluded. It does not include butane when blended with heavier petroleum fractions for motor gasoline purposes. Intercompany sales transactions such as purchases of LPG by one company from other companies and resold as LPG have been eliminated in order to avoid duplication of sales figures.

fastest growing of all the petrochemicals, and ethylene required for its manufacture can be produced by cracking either ethane or LPG.

Rubber

The use of L. P. gas as a raw material for the manufacture of synthetic rubber components increased an estimated 7.5% so that the total volume for this use approaches 400,000,000 gallons annually.

The Rubber Producing Facilities Disposal Commission has been entrusted by Congress with the disposition of the government-owned synthetic rubber facilities. This Commission has announced that it will receive bids between November 25, 1953 and May 27, 1954.

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Safety Standards

Because of the rapid and varied growth of the LPG industry, it is necessary that the safety standards be continually revised and enlarged to keep pace. This activity has been very prominent and fruitful this year. The continuing growth of the L. P. gas motor fuel market has indicated the desirability of enlarging the industry standards (National Fire Protection Association Standard No. 58) by adding a section devoted exclusively to LPG service stations. This work is currently being considered by the NFPA. Other changes in the standards reflect the rapidly growing interest in the use of LPG as fuel for industrial tractors and lift trucks and for truck cargo heaters. Standards have been completed covering the joint storage of L. P. gas and flammable liquids.

The American Gas Association has just completed a comprehensive review and revision of Pamphlet No. 59 covering the use of LPG at utility gas plants. This was a major accomplishment. The American Petroleum Institute LPG Committee is making considerable progress in the development of standards for the design and construction of LPG facilities at gasoline plants, refineries, tank farms, pipeline and marine terminals.

Several states have revised and brought up to date their L. P. gas regulations this year. The acceptance of the NFPA Standard No. 58 by so many states and municipalities is a tribute to the manifold efforts expended by the industry in their development.

Supply

As might be expected, a sales increase of nearly 450,000,000 gallons requires new sources of production. The production segment of the industry kept pace with the addition of 15 plants during the year which have an estimated production capacity of 550,-000,000 gallons per year. Notable among the new plants coming "onstream" was the National Petro-Chemical Corporation plant at Tuscola, Ill. Additional production during the year was curtailed by a "shutdown" order of the Texas Railroad Commission for plants in the Spraberry Trend of West Texas.

Next year it is estimated that at least twelve new plants will come "on-stream" with more than 220,000,000 gallons capacity. This includes two new Canadian plants and a new plant in the Williston Basin in North Dakota.

It is interesting to note that the percentage of LPG from refineries continues its gradual decline. Five years ago 33.3% of L. P. gas came from refineries, and this year it will be about 28%.

Storage

The storage "picture" is the brightest perhaps that it has ever been. It is estimated that there are 67 completed underground storage installations having a capacity of over 205 .-000,000 gallons. There are 76 more such installations either under consideration or construction which will have a capacity of around 285,000,000 gallons. By far the greatest amount of this underground storage is of the type which is washed out of salt beds or domes, though there are a number of the mined caverns under construction. One company has about completed the "sealing" of an abandoned railroad tunnel which will be used for LPG storage. This storage, however, does not obviate the necessity for continued emphasis on adequate consumer storage, new and increased summer "loads", planned deliveries, etc.

Transportation

There are now an estimated 23,500 "high pressure" cars in service. About 7,000 of these are in chemical service which means that nearly 16,500 are LPG cars. It is also estimated that nearly 2,100 L. P. gas cars were added during the year. The search for lower cost transportation

continues. A new sea-going L. P. gas barge to serve Florida and Cuban markets has just been launched. This is the first sea-going barge designed to haul LPG exclusively. Pipeline movements increased during the year. Truck movements of L. P. gas showed a big increase during the year. The underground storage program is one reason for this increase because every time a new storage facility is completed it will increase local truck movements from that point.

Exports

While exports are not included in the table or total sales figures, it appears that exports will amount to nearly 120,000,000 gallons representing almost a 30% gain over last year. As in the past, the principal export market is Canada and Mexico.

Outlook

Interest in the industry and its possibilities for continued growth continue strong. Advance interest in 1954 Annual Trade Show and Convention of the Liquefied Petroleum Gas Association to be held in Chicago in May indicates an even larger turnout than that of the record-breaking 1953 convention, when over 3,500 attended.



The industry is entering the year of 1954 in an excellent position to further expand its sales, since recently completed manufacturing facilities are now producing on a full-time basis, and additional new plants will come on stream in 1954, all forms of LPG transportation (truck, pipeline, rail and water) have been greatly increased, producer's plant storage has been materially expanded principally by addition of underground storage, and steel for tanks and appliances should be readily available. This coming year promises to bring greater emphasis on sales and sales promotion. This drive for new business will not only be to secure new LPG customers, but also to secure new "loadbuilding" uses at present customers. This latter is expected to be an important factor in the industry's future growth.

1952 • Fire Loss Distribution Chart

Statistics Prove That Gas Is The Safest Source Of Domestic Heat

THE annual estimate of building fire losses again points out the greater safety of gas as compared with other widely used fuels and sources of heat.

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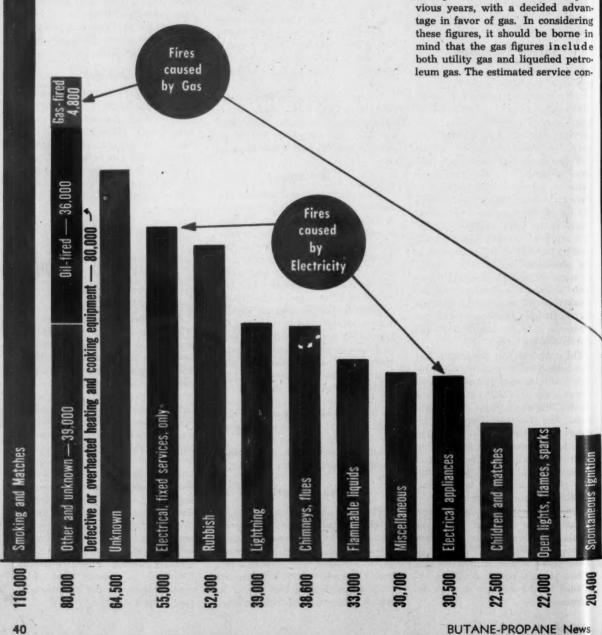
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The comparative figures on fires of gas and electric origin follow the same pattern that was shown in pre-



ESTIMATED DISTRIBUTION OF U. S. BUILDING FIRE LOSSES BY CAUSES - 1952°

*RELATIVE ORDER OF MAGNITUDE OF FIRE

CAUSES, ESTIMATED BY	LOSSES BY	OF MARKET SERVICE AND ADDRESS OF THE PARTY O	
E PROTECTION ASSOCIATION	NATIONAL FIRE		
Number	all manufact on Small or	American Toleran	

	Number	Losses
Unknown	64,500	\$250,310,000
Electrical fixed services, fire due to misuse, faulty wiring, equipment		75,800,000
*Defective or overheated heating and cooking equipmen		72,760,000
Smoking and matches		61,000,000
Flammable liquids, misuse of including vapor explosions	s,	45,000,000
grease, tar, etc.		45,000,000
Lightning		33,200,000
Spontaneous ignition		31,300,000
Exposure		30,900,000
Chimneys, flues-defective or overheated		29,100,000
Explosions, miscellaneous and unclassified	9,900	22,400,000
Incendiary, suspicious	6,300	18,100,000
Electrical, power consuming appliances	30,500	16,700,000
Open lights, flames, sparks	22,000	15,650,000
Hot ashes, coals		13,700,000
Sparks on roof	16,200	11,500,000
Miscellaneous	30,700	11,300,000
Rubbish, ignition unknown		11,250,000
Gas and appliances, including gas explosions	8,300	9,050,000
Children and matches	27/11/12/4	8,220,000
Combustibles near heaters		6,440,000
Torches, welding and cutting	5,300	6,100,000
Sparks from machinery, friction	4,700	5,900,000
Flammable liquid appliances, including lamps, blow	o' Far	Will 2000 51
torches, salamanders, etc.	6,100	4,950,000
Thawing pipes	2,000	2,870,000

*Oil-fired equipment, 36,000; gas-fired equipment, 4,800; other and unknown, 39,200.

TOTALS.....

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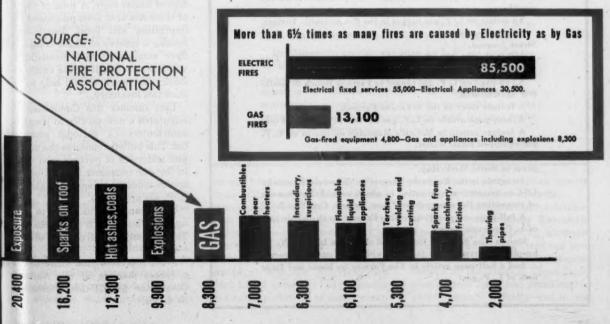
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L. P. gas..... 8,000,000 Electricity48,460,000

The tabulation gives a comparison that was not available in previous years' estimates-that of fires originating from defective or overheated heating and cooking equipment, divided by types of fuel. Both the frequency and total loss attributable to oil burning appliances in this category were seven times as high as those traceable to gas appliances. In view of the fact that the 1950 census figures indicate that there are only approximately 11/2 million more domestic oil burner installations than L. P. gas customers, this should give gas dealers potent ammunition to spike the claim of the oil heat advocates that oil is safer than LPG. The buying public is entitled to the truth. The National Fire Protection Association is giving us the facts. Let's use them.





Report To National Committee On L. P. Gas Promotion

By Lee Brand • Chairman, National Committee

Nearly a billion sales messages!

That's the record of the advertising phase of the National LP-Gas Promotional Program as it completed its tenth round of advertising last October. In more nearly exact round figures, 950 million messages told the magic story of LPG to 112½ million people all over the nation.

And even that is far from the complete story. It takes no account of the hundreds of millions of persons who have read and heard about L. P. gas and its advantages through the broad gauge publicity campaign of our LP-Gas Information Service and through the many local-level promotional aids we provide for dealers.

This record has been achieved in the four short years since the program of the National Committee for LP-Gas Promotion was conceived. We have passed our fourth milestone in a concentrated, continuing effort dedicated to the advancement of the LPG industry.

Our tenth round of ads stressed the many advantages of L. P. gas heating, and we have every reason to believe they have had a real impact that will pay off at the "grass roots" in sizeable load increases. Dealers who tied in their local efforts with the national campaign, of course, will reap the biggest benefits, but the entire industry will profit in one way or another.

In our next round of ads, which will appear this winter, the modern, automatic gas range—the "foot-inthe-door" for the average L. P. gas dealer — will return to the limelight as the featured appliance. A new kit of tie-in promotional tools has been prepared for release to the industry in advance of this round. ers h

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More than 7,500 copies of our consumer booklet, "Better Living . . . With LP-Gas," have now been sent to prospects as a result of requests prompted by our advertising and publicity. This is in addition to 35,000 we mailed without charge to county agents, home demonstration agents, editors and other "influential" persons last fall. We still have on hand a number of copies bearing the LP-Gas Information Service name.

Special Folders Offered

Specially prepared folders on the new L. P. gas refrigerators equipped with the automatic ice-maker which Servel, Inc., printed for us, have been enclosed with all booklets mailed from central headquarters.

We ordered 103,000 consumer booklets for sale to industry companies with the back page blank for insertion of dealer copy. A total of 69,800 of these has now been purchased for imprinting and local distribution, leaving a reserve of 33,200 copies. A flyer announcing their availability, which was sent out to the entire industry last week, should help to reduce this inventory.

Last summer this Committee inaugurated a new service to program contributors—a periodic prospect list. This bulletin contains the names and addresses of persons who write in for our consumer booklet or ask specific questions about L. P. gas and L. P. gas appliances.

Our second list was issued to paidup contributors a few months ago. Thus far only a small number of deal-

From a presentation made before a recent meeting of the National Committee for LP-Gas Promotion, St. Louis.

Articles To Help You Sell LPG

Here are just a few other typical articles the LP-Gas Information Service placed or helped to produce in recent months:

An article on L. P. gas ranges in the Pennsylvania Farmer.

A long feature story on L. P. gas tractors in the Wall

Street Journal.

A full-page review of our promotional program in Tide Magazine.

A full-page on L. P. gas ranges in Farm & Ranch & Southern Agriculturist.

A feature story in the Arkansas Farmer.

A three-page article on L. P. gas tractors in Business Week.

A feature article in McCall's Magazine on life in an L. P. gas-equipped home trailer.

A rundown on the present status of our promotional program in Rural Marketing.

An article in the Kentucky Farmer on the recent Kentucky LP-Gas Association convention in which we had the pleasure of presenting the symposium, "How Modern Can You Be?"

A full-page story in Progressive Farmer on the whole line of L. P. gas appliances.

One in New England Homestead on how a Liberty, N. Y., hospital modernized its facilities with L. P. gas equipment.

And a half-page article in The Farmer on home and farm uses of L. P. gas.

ers have filled out and returned the report form attached to it. Several of them said no prospects from their areas were included. In spite of this, they reacted favorably to the idea behind the lists and asked us to "keep'em coming."

Because publicity is such a specialized field and because prompt action is frequently required to obtain the best results, we do not have a subcommittee charged with the direction of this phase of our program. It is carried on by Bob Borden, our Secretary and Director of the LP-Gas Information Service, and the Assistant Director, George Shulte.

LPG Modernization Story

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An example of the publicity released by the committee may be found in the long, illustrated article which recently appeared in a leading farm magazine. It featured an Iowa farm family who modernized its kitchen with LPG. This publicity project had its inception over two years ago and required many hours of work, conferences with editors, assistance to photographers and other activities before it became a reality. The result is a "spread" featuring our product in a leading farm magazine with an aggregate readership of 8,000,000 persons. The same amount of advertising space would have cost us \$25,000.

Reprints of this story have been sent to 12,000 industry companies.

Frequent mat releases are being made to the thousands of small town and rural newspapers throughout the country. Among the more recent of these were a picture caption depicting the many farm applications of L. P. gas; a water heater sizing chart; a picture caption about our consumer booklet, and an article pointing up the economy and other advantages of L. P. gas tractors as revealed in a study made by a University of Illinois professor. Clippings from the thousands of newspapers which have used the releases are arriving daily at staff headquarters in ever-increasing numbers. Many millions of prospects are being acquainted with L. P. gas through these channels.

One of the important jobs our publicity staff is doing is developing a wide circle of contacts and friendships with editors whose publications circulate in our markets. In line with this objective, the Information Serv-

Here Are Highlights of Specific Services Performed By Your L. P. Gas Promotion Service

The publicity work of the LP-Gas Information Service can be divided into several categories. Among these are the following:

- Preparation of special and general articles on home and farm uses of L. P. gas for release to national, regional and state farm magazines.
- Tracking down stories for submission to national women's, shelter and general circulation publications and working closely with the editors until the last picture is taken and the last paragraph set in type.
- 3. Release of news stories and picture captions in mat form to the thousands of weekly newspapers circulated in rural and small town areas.
- Release of news and information about L. P. gas to newscasters and conductors of homemaker programs on hundreds of the nation's radio stations.
- 5. Release of news stories and pictures on the promotional program and the industry to the financial and petroleum editors of the dailies and the trade and business press. The consistent pursuit of this policy has an important bearing on maintaining continued interest in the program and attracts new contributors to the cause. Publicity about the business itself lends prestige to the industry vital to its future growth and progress.
- Release of special articles on commercial, industrial and transportation uses of L. P. gas to business and trade magazines.
- 7. Answering questions asked by editors of magazines and newspapers on any and all phases of the L. P. gas business. Also the preparation of statistics, background and historical data for use by these editors.
- 8. Preparation of pattern press releases for use by dealers in their local areas.
- 9. Trouble-shooting. When unwarranted, unfavorable publicity appears, our Information Service staff gets in touch with the editor or writer and gives him the facts.
- 10. Answering specific questions on L. P. gas appliances, installations and services received from the public. Letters, postcards and telephone calls bring scores of these each month to our Information Service office. Each is handled as courteously, completely and quickly as possible, but the prospect is always urged to get in touch with his local dealer for complete information.

ice was host on Oct. 6 to 21 to farm home editors representing national, sectional and state farm magazines with a combined circulation of 15 million at a one-hour meeting in Chicago's Blackstone Hotel.

This same demonstration was presented at both the Kentucky and Ohio LPGA meetings before specially invited audiences of home economists, home demonstration agents and home economics students.

Last June at the annual convention of the American Home Economics Association in Kansas City, blow-ups of major illustrations from our consumer booklet were used as a graphic feature of the display. These large photomurals have had considerable supplementary industry use in the

Other Promotional Activities

Four publishers are now producing calendars specially designed for use by L. P. gas dealers. Two motion picture producers are turning out L. P. gas movie trailers. All six of these companies have been given copy, promotional and editing help to insure a close tie-in with the National LP-Gas Promotional Program.

The latest addition to the local-level materials offered to our dealers is the new "scotch-lite" highway signs. A representative of the producing company called on our Secretary several months ago to work out appropriate designs and copy. He later called on me to show me the finished product and I was so enthusiastic about it, I arranged to contract for the service for my own company.

In cooperation with one of our three sponsoring organizations, the Gas Appliance Manufacturers Association, we sent out self-mailers advertising tie-in materials available for the 1953 Old Stove Round-Up to nearly 1,800 L. P. gas dealers. It is our understanding that this action has resulted in a sizable number of orders.

We also laid the groundwork this year for four important future projects—an industry film, a specification sheet for distribution among architects and builders, a competition guidebook, and comparative L. P. gas-versus-electric cooking tests with different types of utensils.

Much of the staff's time and that of this Committee in the past year has been devoted to the promotion of program memberships. Messrs. Borden, Schulte, Ennis, Halihan and I have given talks and slide presentations at national, regional and state meetings in every section of the country. Several other industry men and women have been extremely helpful in this department as well.

We are also using the following additional methods of telling our story to the industry and signing up new contributors:

- Hal Halihan is spending full time in the field calling on prospects.
 - 2. Periodic mailings are made to our entire prospect list.
- Individual selling letters are written to prospects by the staff and members of our various fund-raising subcommittees.
- Frequent publicity on the subject is released to the trade and business press.
- 5. Full-page ads are run three times each year in the two national LP-Gas trade publications.

Report of Income For Fiscal Year

Our income for the first seven months of our current fiscal year (March 1 through Sept. 30) totals \$213,648. This is about \$12,000 ahead of the corresponding period of 1952.

Our grand total from the beginning of the program through Sept. 30, 1953, stands at \$1,320,769. The breakdown of the amounts contributed by the various industry branches is as follows:

Appliance Manufacturers	338,949
Equipment Manufacturers	249,151
Special Manufacturers	8,907
Total Manufacturers	597,007
Marketers	278,455
Producers	435,354
Unclassified	3,978
Non-Members	5,975
Grand Total	,320,769

intervening months. The Missouri and Wisconsin LP-Gas Associations borrowed them for exhibits at their respective state fairs. Both organizations report that they were seen by huge crowds. The Kentucky Association also used them.

Sales Training Course

The sales training course is now making very important contributions to the industry's advancement in dealer organizations all across the nation. Although orders for complete sets and for individual booklets have fallen somewhat short of expectations, we are continuing to hammer away at marketers to convince them that they badly need this selling tool to keep their personnel on their toes and do a real, bang-up sales job.

The cost is so small—only \$4.50 per set and only \$3.60 to program members—that it is hard to understand why every dealer in the country has not bought a number of them for use in his organization. We gave the course additional advertising in the flyer which went out last week from central headquarters and hope it will result in an avalanche of orders. The sales training film, "New Ways to Sell Modern Gas Ranges," is also given a "plug" in this flyer.

Because of our improved fuel supply situation last winter, activity in our adequate storage campaign is considerably below what it was a year ago. Despite this apparent lagging of dealer interest, I think we can point with pride to the accomplishments to date. I believe the program developed by the National Committee has had a lot to do with ironing out our annual peak load problem and easing one of the industry's worst headaches.

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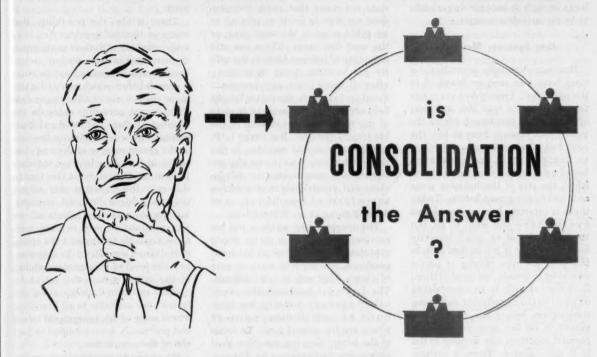
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In addition to the many program activities I have reviewed thus far, there are several others of a related nature in which our staff has been engaged.

Since our last annual meeting, we have added nearly 225 members to our honor roll. Seven of these are manufacturers and the remainder are L. P. gas wholesalers, dealers and sub-dealers. The staff is now in the midst of an intensive letter-writing campaign to attract new contributors to the cause and to get delinquent ones to reinstate their memberships.

To Be-or Not To Be-BIG



By Carl Abell

OE ZILCH has a good local L. P. gas business, and he takes his business seriously. Joe's operation is a typical success story-started seven years ago with \$4000 and a used truck, and it is worth \$200,000 today. It has been fun, but terrifically strenuous, and the demand for money to keep up with the growth of the business has been terrific. In fact, Joe has not bought a new suit for five years, and the house that was fine when the kids were small is quite inadequate now that they are in high school. Soon there will be the problem of college educations.

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Meanwhile a competitor is moving in on him with metered service. The customers like this because they do not have to buy their own tanks, and they pay a small fuel bill each month instead of big bills three or four times a year. Joe will have to meet this competition in some way, and that will require more capital.

Joe Zilch exemplifies a phenom-

enon of American business. Not just the liquefied petroleum gas business, but all types of business that pioneer the supplying of the daily needs of large numbers of people through central technical facilities. Other Joe Zilches have built the petroleum business, and still other Joes have built the petroleum-operated transportation businesses-motor freight, local and interurban bus systems, commercial aviation. Earlier Joes built the railroads, and the gas and electric utilities. All these, and many other lines not so closely parallel to the L. P. gas business, were pioneered by a large number of rugged individuals with little capital and a great deal of courage. In all of these more mature businesses the day came, as it is coming now for countless Joes in the LPG business, when courage reached its limit as collateral, and from there on out it was necessary to finance with money. The big problem was where to get the money. These older and more mature industries get their fresh capital from the one source that never dries up—from the public.

But the public, you say, is not willing to invest in Joe Zilch's little \$200,000 gas business. How true. If the property was worth a million, financing would be much easier. Investors want to buy management as well as the opportunity for dividends, and the fact that a company has grown big is accepted as evidence of good management. If the assets and opportunities of the business justify raising the capital to \$50 million, financing is no longer a problem. We are now getting right into the heart of Joe's dilemma.

All of these older industries that we have considered went through this same pioneer stage, as a large number of small businesses, most of which became too large for the owners' capital, while still too small to attract investors. They all reached financial maturity by the same route—consolidation of numbers of small businesses into operating companies large enough to become desirable risks for investment capital.

Bus Systems Merged

How many intercity motor bus systems have you seen or heard of in the past year? Twenty-five years ago there were more than 500, and most of them were wondering where the money was coming from to buy the next bus. Consolidations and investor financing set in, and as the number of operating companies diminished, the size of the industry grew as it had never grown before. Today there is intercity bus service almost everywhere you want to go, but there are almost no small intercity bus companies. It is true that certain bus lines are now wholly or partly owned by railroads, but most of these lines were already large consolidated organizations, offering damaging competition, before the railroads moved in on the common stock. A parallel condition may develop in the L. P. gas industry. There is nothing to prevent acquisition of L. P. gas distributing companies by the natural gas interests, or even by the direct marketers among the oil companies. In fact, there is much to be said in favor of such a development.

Joe Zilch and about 5000 other independent L. P. gas operators who read their industry magazines and go to industry meetings realize that consolidation has set in. Suburban Propane and affiliates cover the Atlantic Coast from Maine to Georgia. Green's Fuel is spreading out from Florida through the Southeast. A new star, Consolidated Gas Co., has been born in Georgia. (See October, November, and December issues of Butane-Propane News.) General Gas is moving out through the central Guif states. Out in California, Petrolane, Suburban Gas Service, and Van Horn Butane Service are picking up independent operations. The Northwest has Gas-Heat, Inc., with 25 branches. Dri-Gas is becoming the colossus of the Chicago area. There are dozens more coming up. Western Canada already has several strong chains, and a new one, Pro-Gas, financed through New York, is rapidly coming up.

Consolidation made great strides in our industry in 1953. It appears that the trend will accelerate in 1954. That does not mean that every independent operator is going to join up or be gobbled up in the next year, or the next five years. There are still a number of independents in the utility gas business doing right nicely after all these years, and unconsolidated operations in the motor freight field are still very numerous, in spite of the tremendous expansion of the big freight systems. But every L. P. gas operator should consider, in the light of his own business circumstances and personality, the advantages and disadvantages of entering some form of consolidation, or of fighting along as an independent.

The operator who wants to put his services as well as his assets into a consolidation must give up his independence, and learn to work as part of a team. That may be a bit difficult. The L. P. gas business; like every other pioneer industry, has been built by individualists, many of whom are the rugged type. To some of the latter, carrying out other people's policy decisions can be distasteful, and waiting for them to come down through channels can be even worse. The man who can not have patience with his higher executives should either stay independent, or sell out and get out.

The independent who can count on continued expansion, and can finance his own growth, or who can obtain outside finances without giving up too much in the way of control and profits, may be in better position if he remains independent and continues to grow, even though he has the intention of selling out or merging at a later date. The tax laws enter into this situation. Capital gains and current excess profits tax conditions applying to the specific situation need to be considered.

The tax factors may also determine whether it is advantageous to sell the business for cash or accept the securities of the consolidated company in payment. Excess profits tax situations of both companies enter into this consideration, as well as the possible advantage of capital gains settlement of the tax liability in case of an outright sale, and the investment earnings of the remainder of the sale price, compared with what

might be expected in dividends and appreciated value if the seller accepts securities in the consolidated company.

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There is also the possibility that many of the independent dealers could combine with their competitors or associates in their own or neighboring communities and put together a consolidation which would give these dealers many advantages that they do not presently enjoy in the conduct of their individual businesses. This was apparently the case in the recent merger of the five companies in Georgia which got together to form the Consolidated Gas Co. In this case the objective was to not only to achieve financial strength, but also to make the talents of certain outstanding men in each company available throughout the entire consolidated operation. In this manner, the level of management ability of the entire group was raised by making specialized ability along different lines available to all branches. where some of this exceptional talent had previously been confined to just one of the companies.

Whether the business remains independent or joins a consolidation. the same phases of management must be handled skillfully to operate at maximum profit. The independent operator must be his own specialist in most of the management phases. A few have the breadth of experience and training to do this, and these men generally head outstandingly successful independent businesses. Human nature being what it is, most managers of the present independent businesses tend to be more skillful in one, two, or three of the dozen or more management phases, hence they devote a top-heavy proportion of their time and talents to these branches of activity, and more or less neglect other important aspects of the business.

Filling In the Gaps

If properly organized and managed, consolidated organizations can fill in these gaps by supplying, through central headquarters, properly trained and experienced specialists to head up the various phases of management. Special technical help is also available to help promote such activities as industrial and commer-

cial applications, and carburetion, in which lines many independent operators are doing little because of lack of knowledge or lack of time. Centralization of other activities such as accounting and billing, employe training, advertising and sales promotion, purchasing, etc., nearly always effects economies and increases efficiency, and leaves the branch managers free to devote more time and attention to the customer end of the business. These are strong talking points in favor of consolidation, and the operating strength that they give, along with greater financial strength, make consolidated units tougher competition for the independent operators. Obviously, some consolidated organizations have a great deal more to offer in these lines than others. The independent considering putting his business and his services into such a group would do well to examine carefully what the organization has to offer.

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Management Is Key

An organization is as good as its management personnel. Securing proper managerial ability is the greatest single problem in building a consolidated organization. The larger the organization, the more executive jobs in the central headquarters there are to fill, and the more field supervisory positions will be available. It is customary to fill these positions from within the organization if sufficient men of the required caliber are available. An independent who has done an outstanding job of managing his own business may work into one of these higher positions, where the monetary return is as great or greater than he realized in the operation of his own business. If there is currently no such opening in the central staff, it is generally considered preferable to retain the former owner as branch manager, if mutually agreeable.

There are cases on record in which former owners of businesses that were purchased outright have been retained as managers of those particular branches under long term contracts. These men were considered too valuable in holding business against strong competition to let go under such conditions that they might join the competition.

Not every former owner wants to go on, so it is necessary to provide replacements to head these newly acquired branches. Retirements, resignations, and deaths create other openings, so it is necessary for the consolidated organization to be getting men ready for more important positions all the time.

The valuation of a business going into a consolidation is not fixed by any arbitrary standard, but by individual bargaining. Record of earnings, physical valuation of facilities and assets, and opportunity for development are all important. Earnings are probably the most important of the three. This follows logically from the fact that as consolidations become larger they must seek financing by sale of securities, and earning ability is necessary to make the stocks saleable. And as common and preferred stock of the corporation is traded on the market, the only yardstick for determining the market value is the earning power per share. The opportunity for future development is recognized and considered by the purchasing company, but discounted as much as possible in the bargaining. In establishing valuations for a proposed merger, setting a value on potential development is almost sure to be a fatal stumbling block, because no two people will agree on what undeveloped business is worth

In addition to what he receives in cash or value for the business that he has built, our Joe Zilch should also consider three other factors: (1) What the new arrangement offers him personally in remuneration, opportunity, and satisfaction; (2) whether the relief from a portion of his present burden makes up for any financial sacrifices and for the loss of independence which is an inevitable part of consolidated operation; (3) whether, if he remains independent, he will have a source of capital to meet the type of competition which is being offered by the large consolidations. While "personalized service" is still an important factor in getting business, it takes money to fight money, particularly when it comes to developments involving larger storage and higher inventory.

If the independent does not have his personal source for obtaining additional money, this generally involves taking in major amounts from a single or limited number of private sources, and this arrangement nearly always sacrifices control of the business. Consolidated organizations, and the few independents large enough to raise their operating capital through offerings of stocks and bonds in quantities sufficient to interest investment bankers, run less risk of loss of control. While the bankers and promoters take a cut out of the ownership stock of the business, the majority of the finances are obtained from a large number of small investors, who seldom try to organize and obtain control as long as the management is able to return satisfactory dividends to the investors.

The typical Joe Zilch is prejudiced against giving a share of the assets to the promoters of consolidations. That is understandable. And it is true that fortunes have been made by promoters of the great consolidations in our more mature industries. It is significant that the accumulation of this personal wealth has not weakened those industries. Nobody bled them to death by promotion. Their "cut" is in a measure their compensation for the strength that has been given to the industries by the work of the promoters. And nobody can deny that the industries mentioned above are stronger as the result of consolidation. In most cases the period of greatest growth came shortly after the big wave of consolidation took place.

A Tough Decision!

So Joe Zilch, ardent individualist, who went into the L. P. gas business so he could be his own boss, is about to make a tough decision. He loves his independence—the ability to make his own decisions, the complete possession of the rewards, the risk of the penalties, the satisfying feeling that comes through pride of ownership, the incentive that comes from working for himself.

But he recognizes that the independent is strictly on his own—that he now is or soon will be in direct competition with a larger and better financed organization, with a greater array of specialized talent, and with every competitive element in their favor—except independence.

Joe must fight, or join.

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Suggested Program for Safety Meeting

- 1 Complete the attendance record, noting the absentees.
- 2—Is there still any unfinished business regarding previous safety suggestions or safety improvement projects?
- 3 New business additional suggestions on safety matters suggested by employes.
 Even though they may previously have been made in writing, why not have each man making a suggestion give it verbally.
- 4 Discuss "The Prevention and Control of L. P. Gas Fires", and hold demonstration if one has been arranged.
- 5 Announce date, study assignments, and special assignments for the next safety meeting, which will be devoted specifically to fire extinguishers and fire extinguishment. As supplementary material, supply men with bulletins on control of L. P. gas fires. Those from the following sources are particularly good:

Bastian-Blessing Co., 4201 W. Peterson Ave., Chicago 30. Ansul Chemical Co., Marinette, Wis.

DISCUSSION GUIDE FOR The Prevention and Control of L. P. Gas Fires

In spite of the vast amount of material that has been published on the nature and characteristics of L. P. gas, the organization in which all members have a clear understanding of all of its characteristics is rare. Our purpose in reviewing these characteristics in the December safety article was to refresh the memories of all the employes who are properly familiar with the fuel, and to provide basic understanding for the newer members and those whose knowledge on certain points might still be hazy. This knowledge is essential to the judgment necessary in handling emergencies, and we cannot assume that every employe has the necessary understanding. Let's bring all this out in the open, and help each man over the hump.

All of the problems presented in the December issue on page 70 were designed to test the employe's understanding of these fuel characteristics, and lead them to analyze the situations in terms of what to do to prevent fires, or to confine those already

burning, and prevent disaster that might follow the spread of the fire to containers in which substantial amounts of L. P. gas is stored.

These problems combine logically with those presented in this issue, and it is suggested that if your plan for this meeting includes a fire demonstration, the discussion part of this meeting should be confined to a short review of the fuel characteristics, followed by the demonstration. Discussion of the problems can be carried over to the next meeting.

Experience through which any person has gone is more important in his mind than theoretical situations could possibly be. Any fires with which your organization deal should be discussed at your safety meetings, with particular attention to what could have been done to prevent that fire.

This would be an appropriate time to test all fire protection equipment in the plant and on the trucks, and to plan any improvements in equipment or location of fire fighting units.

FIRE FIGHTING AND EXTINGUISHMENT

By Carl Abell

HERE is seldom time for preparation to fight a fire after it breaks out. The first minutes of any fire are the most important-they may determine whether it will be extinguished in its early stages, or go out of control and result in tremendous damage. The recent disastrous fire which destroyed the supposedly fireproof Hydramatic Transmission factory near Detroit is a case in point. The fire broke out in anti-rust compound on a conveyor, and ran back to the supply vat, with just a little too much flame to be controlled by the extinguisher used by the safety man who was standing by. The portable extinguishers were put in service, and had the flames almost under control when the available chemical supply ran out. From there on it was not possible to control the spread of flames, and the result was the greatest industrial fire loss in history.

Records show that fires discovered and properly attacked in the first five minutes can nearly always be handled by first aid fire equipment—provided that the equipment is handy, has sufficient capacity, is in working order, and the man who uses it understands what he is doing. That is the formula for successful control of fires. But unless all these steps are taken in advance, the fire will probably not be controlled.

Pamphlet 58 is specific in its requirements for the presence of suitable fire extinguishers at critical spots in L. P. gas storage plants and on all vehicles used in transporting gas. It also places emphasis on the necessity for preventing the accumulation of combustibles in the immediate vicinity of any storage units, either in bulk storage plants or on customers' premises. The regulations governing location of tanks and cylinders in relation to other structures are basically to reduce fire hazards, to permit efficient fighting and control of any fires that do occur, and to protect L. P. gas storage from the heat of any adjacent fires. The Pamplet 58 rules do not say anything about fire protection of warehouses, offices, and other buildings in connection with storage plants, or in homes and other structures where L. P. gas is used. This is regulated by local fire authorities, if at all, and by the judgment of the personnel of the various establishments.

In a properly designed and maintained bulk plant where good housekeeping is the rule, there never should be a class A fire larger than can be handled with portable equipment. Office and warehouse buildings present their own hazards, and sometimes have fires, so suitable extinguishing equipment should always be permanently located there as well as in the plant. This may consist of fire extinguishers, water equipment, permanently attached hoses, or all of these provisions. The amount and size of equipment may be modified according to the proximity or absence of public fire fighting equipment, water mains, etc., but it should never be less than is needed for preliminary control of any size fire that may be anticipated.

It is impractical to protect against every contingency at every location. Suitability of equipment depends on two factors: size of risk and whether the fire anticipated is to be of Class A, B, or C. Class C fires rarely occur around L. P. gas plants, and the extinguishers more useful in combatting LPG fires are highly suitable for electrical fires, so we will not consider them in any different category than the fires more frequently encountered.

The following equipment is considered suitable for the protection of the various installations listed:

L. P. Gas Bulk Plants: At least one large hand extinguisher of the dry chemical or carbon dioxide type per transfer unit, located in the open where it will be readily accessible close to the "exposure." One large hand extinguisher of the same type located next to space that is always clear in cylinder filling house, or just outside filling house door. In a large plant including a warehouse, a hand truck type extinguisher could advantageously be stationed outdoors but under cover at the warehouse. If any fire occurs that is large enough to need this extinguisher, it will generate considerable heat, and the advantage of selecting a unit which will be

effective with the operator at a considerable distance from the fire will be apparent.

If water pressure is suitable, a 1-in. hose with combination water fog and straight stream nozzle, permanently installed where it will reach either the tank piping or the cylinder filling house, should be included. It should never be removed from this location. It may be necessary to provide protection to a fire fighter if the need arises to approach a point of combustion to turn off a valve, or to cool a tank as protection against an adjacent fire.

Bulk delivery tank trucks: One large dry chemical or carbon dioxide extinguisher per truck. Some prefer this to be located on the back of the cab on the driver's side—others find advantages in locating it where it may be reached from the control position while making a delivery. There are points in favor of each preference.

Transports: At least one large hand extinguisher. If transport outfit includes a separate four wheel trailer unit, most authorities consider that there should be a second extinguisher on the trailer.

Large industrial installations: At least one large dry chemical or carbon dioxide extinguisher, and one combination water fog and stream nozzle on a 1-in: hose. Very large installations may require 1½-in. hose.

Standby storage: A properly designed automatic permanent water sprinkler installation may be helpful if personnel is not always available. It may be supplemented by fog nozzle protection. These installations should all be checked by a competent fire authority.

Small commercial and industrial installations: At least one small dry chemical or carbon dioxide extinguisher and a garden size hose with an adjustable nozzle.

In any of these installations, the fire protection equipment should conform to the requirements of the state or local codes, and should be approved by the fire marshal having jurisdiction. It is a good idea to consult him before the installation is

(Continued on page 51)

CLASSIFICATION OF FIRES

In order to simplify communications concerning fires and fire fighting, fires are grouped into three classes, based on the type of fuel from which they originate, and other important factors which have to do with methods of control. These types of fires are defined and controlled as follows:



Class A fires: Miscellaneous combustibles of solid or non-fluid nature, such as wood, coal, paper, textiles, rubber, trash. They are best fought by removing heat. Water is the best medium. wor fire able

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In the case of Class A fires, dry chemical powder or carbon dioxide extinguishers will check fires, but final extinguishment must be accomplished by cooling, generally requiring application of water or water solution.

In fighting a Class A fire with extinguishers of the smothering type, the stream is directed to the base of the flames so the inert vapor will be drawn into the fire by the air currents. Remaining embers must be quenched to prevent re-ignition.



Class B fires: Flammable liquids and vapors. Best fought by smothering, although cooling is sometimes effective. These are subdivided into: a. Contained fires, in tanks, vats, and sumps. b. Running fires, involving a flaming stream substantially in one plane. c. Three dimensional fires, in which fuel is burning in more than one plane.

Class B fires comprise a special problem. Dry chemical powder extinguishers are particularly effective on them, but foam, carbon dioxide, and carbon tetrachloride are helpful on small fires.

Three dimensional Class B fires require water fog, carbon dioxide, or dry powder units. Gas fires which can be killed by any of these methods must not be extinguished unless by so doing access to a shut-off valve is permitted.



Class C fires: Fires in or involving electrical equipment. Best fought by killing circuit and by smothering.

These fires may be dangerous to the fighter if improperly fought. Soda-acid or foam should never be used because of the current carrying capacity of the streams. Water may be safely applied with a fog nozzle at close range—never as a solid stream.

In any case, it is desirable to kill the circuit if possible before attacking the fire. Electrical fires may then be extinguished with carbon dioxide, dry chemical, or carbon tetrachloride.

complete, as he may be able to make worthwhile suggestions to make the fire protection equipment more valuable in case of emergency.

In order for the equipment to be effective, the plant personnel needs to know where it is located, and how to use it. This requires periodic training and drills, and basic knowledge of how fire extinguishment takes place. But we can only understand extinguishment if we know the principles of combustion—why fires burn.

Ingredients of a Fire

In order to have a fire, three conditions must be present: fuel, oxygen (supplied by the air), and heat or ignition. The absence of any one of these three ingredients will make it impossible for the fire to continue burning. Thus, if we remove the heat, or remove the oxygen, or remove the fuel, we have no more fire. These principles apply to all fires, including those in which L. P. gas is burning. Since we must protect L. P. gas in storage from fires burning in adjacent situations, we need to know how to control all types of fires, so let us go one step farther back in our fundamentals, and find out one more fact about fires.



Only a mixture of gas and air will burn. Solid fuel does not burn. Liquid fuel does not burn. But either solid or liquid fuel may be converted into flammable gas, if exposed to sufficient heat. This gas, mixed with air, does burn. And this explains the fact, so often observed, that under every flame burning over a solid or liquid fuel, or over a gas burner, there is a little space in which no burning seems to take place. This is correctno combustion occurs in this short area, because there has not yet been enough air introduced to make a combustible mixture.

In the case of a fire burning above any solid fuel, extinguishment can be accomplished by providing sufficient cooling to stop the conversion of the



combustible ingredients of the fuel into vapor. We may put these fires out by cooling the fuel with water. Thus, by eliminating heat, we eliminate the fire, although the fuel and the oxygen are still present.

Eliminating Oxygen

In a fire burning over a liquid, such as gasoline, we cannot accomplish extinguishment with water, because the water is heavier than gasoline, and as we pour or spray water on the fire, it merely sinks below the liquid, which is still exposed to the heat of the flame, hence it continues to produce vapor, which mixes with air and burns. Our means of extinguishing fires over liquid fuels is to eliminate the oxygen. We do this by producing a layer, or "blanket" of something else over the liquid which at least momentarily prevents the entrance of air. With no oxygen, combustion cannot continue, and extinguishment takes place. The old-fashioned candle snuffer worked just that way. Sliding a cardboard across a saucer of burning gasoline, which is a standard ingredient of the usual fire control demonstration, does the same thing. And in practical fighting of full scale fires, we direct the stream from the fire extinguisher in such a way that the vapor from its contents, which contains no oxygen, produces a gas blanket which covers the fuel, temporarily eliminating oxygen by eliminating air, and the fire dies. With this same kind of gaseous blanket we can also smother a fire over solid fuel, if we have enough of the non-combustible gas to exclude the air until the heat which converts the solid fuel into vapor has dropped below the temperature required to ignite the mixture of gas and air. Because of this residual heat in the solid fuel, fire extinguishers which smother with dry vapor or dry chemicals and hence have little cooling effect, are not effective in controlling large class A fires, and should be supplemented with a water spray to provide cooling.

These same types of fire extinguishers, which smother fires by excluding oxygen, will effectively extinguish gas fires. But here we have another situation. If we extinguish a fire in escaping gas (L. P., natural, or any other gas), we may be worse off than before. If the gas continues to escape, it may accumulate in sufficient quantity that if it reignites from some other source, the fire may be much worse than originally, and if the escaping gas penetrates into an enclosed space before ignition takes place, it will almost certainly produce an explosion. Hence, the rule that we see in all literature on the control of fires in L. P. gas: IN ANY FIRE IN WHICH LIQUEFIED PETROLEUM GASES ARE BURNING THE FLAMES SHOULD NOT BE EX-TINGUISHED UNLESS, BY SO DO-ING, THE FUEL SUPPLY CAN BE TURNED OFF. In this case, we want to extinguish the fire by eliminating the fuel. If we can not stop the fuel supply by closing a valve, then it is better to allow the gas to continue to burn rather than attempt to extinguish the flame and allow the gas



to continue to escape. Gas that has burned is permanently harmless, while escaped unburned gas constitutes a hazard until it has dispersed into the atmosphere below the flammable limit. If adjacent property can be protected from igition, a fire in escaping gas can be safely allowed to burn until the fuel supply is exhausted.

Accurate Planning Important

If it should become necessary to go in close to an uniginited major L. P. gas leak to close a valve, there is always danger of remote ignition and a flash back to the point of escape Handling this situation safely requires accurate planning, and the man who closes the valve should have as much protection as possible-

while doing the job. He should approach the valve from up-wind, if possible, to stay out of the contaminated zone if it can be done. In case it is necessary to enter or approach closely to the gas cloud, he should be protected by a fine spray of water. In case of sudden ignition of the fuel, this precaution may make the difference between singed eyebrows and



third degree burns. This is one of the reasons why a permanently installed hose should be on hand in the transfer area of every bulk plant—and preferably located where the prevailing wind, if blowing, will carry escaping gas in the other direction.

Demonstrations Are Essential

All of these details should be carefully worked out for every plant, the fire extinguishers and water hoses located in the best places, and then the entire staff should be made familiar with all of these precautions and their correct method of use. This training requires not only explanation, but also demonstrations. If there is a city or county fire department or a fire marshal available, they can give expert help in planning and carrying out a fire extinguishment demonstration. Several of the fire extinguisher manufacturers also have trained personnel available for educational demonstrations of fire control and fighting. Unless your own organization is particularly large, these people would probably prefer to make demonstrations for larger groups. This is a phase of operation in which competitors in a locality may very profitably cooperate to secure the best possible demonstration. The party should be held at a safe location away from the plant, and should include both Class A and Class B fires. Class A fires in the vicinity of LPG tanks are much more frequent than Class B fires originating from butane or propane. We definitely need to know how to handle fires from other sources in order to prevent LPG fires.

Demonstrations of how to fight various kinds of fires should be kept away from the immediate vicinity of L. P. gas storage. But the bulk plant staff needs to go through fire drills in the plant itself, to get necessary training in the proper procedure for handling every possible contingency that can arise in the plant. A "shipboard" type fire drill now and then is an excellent idea, training every man to know without stopping to think, where every fire extinguisher is located, and how it should be operated. It is not necessary to exhaust the fire extinguisher charges for these drills, or to get the participants wet with spray from the hoses, but the extinguishers and hoses should be gotten out and taken into position to fight the imaginary fires. In this way, the staff builds up the habits that make the right actions automatic under emergency conditions.

It is the general consensus of opinion among the more experienced operators in the industry that selection of fire extinguishers should be limited to the types using dry chemicals or liquid carbon dioxide for the charging materials. There is a practical reason for deciding against the carbon tetrachloride extinguisher, in addition to the chemical reasons listed in the description of that type of unit. Carbon tetrachloride makes very effective cleaning compound for spots on clothing, grease on fingers, or dirty mechanical parts of units that are being overhauled. Only a little cleaning fluid is needed, and there it is in the hand extinguisher, where it can be conveniently pumped out in the quantity desired. There is nothing on earth more frustrating than to rush up to a fire and start pumping an empty extinguisher. With the dry chemical and carbon dioxide extinguishers this does not happen.

Dry chemical extinguishers have recently been enlarged in capacity without being materially enlarged in size or weight. The external mounting of the carbon dioxide pressure cartridge permits the use of one-third more powder than was available in the same shell size formerly used with the internally mounted pressure cartridge. The large size hand extinguishers formerly carrying 15 lbs. of powder, with the underwriters' B-1

listing, are still classified as B-1 with the external cartridge and 20 lbs. of powder. (These symbols in the underwriters' ratings indicate the class of fire for which the extinguisher is most suitable, and how many are required to extinguish a fire of standard proportions under uniform test conditions. Thus a B-1 listing indicates that the extinguisher will put out the standard size test fire in flammable liquid (gasoline for test purposes) but a B-2 listing indicates that two of this size will be required for the standard size fire.)

Part of the regular safety procedure of every plant should be the periodic testing of extinguishers, and every extinguisher should be recharged immediately after being used at a fire. The necessary data is included on the plates attached to the extinguishers approved by the Underwriters Laboratories. In selecting extinguishers, care should be taken to purchase only those bearing the underwriters approval. These are of known quality and capacity, and meet the standards considered necessary by our most competent fire authorities. While other makes may be just as good, there is no convenient way of establishing that fact. The question always arises, "If the unapproved models are good enough to get underwriters approval, why do they not get the approval, and end the doubt?"

Protect Fire Extinguishers

Fire extinguishers kept in exposed locations should be protected in some way against the weather. Small wooden or metal housings are convenient and inexpensive. They should be designed so the door or lid will stay closed by gravity, but may be flipped open instantly. Under no conditions should the housing be locked, and nothing should be allowed to interfere with the quick removal of the extinguisher. Seconds count in fighting fires. It is quite general practice in refineries to paint these fire equipment shelters red, with a sign stentilled on each to make clear what equipment it contains. This is a good practice for large L. P. gas plants.

Fire fighting equipment is in the same category as the frontiersman's revolver. He had to have it—it had to be ready to use at all times—he had to know how to use it—but he hoped he would never need to use it.

Let's make SAFETY Everybody's Business

HOW TO FIGURE 5





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SAFETY MEETING

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The poster on the other side of this page is for your use in announcing the Safety Meeting covering

"Fire Fighting and Extinguishment"

(See opposite page)

Fill in date and hour of your meeting, and pin on bulletin board.

* Another poster comes next month.



Protect lives . . . guard property with a PROTECTOSPRAY SYSTEM FOR LPG STORAGE

Fire and explosion hazards from liquefied petroleum gas occur mainly when there is leakage. At such times, and if disaster is to be averted, several things become immediately necessary, whether or not ignition occurs.

- 1. The leak must be located and the leakage stopped. ProtectoSpray protection provides a margin of safety for the personnel doing this work.
- 2. Heat transfer to the storage tanks must be prevented to avoid build-up of rupturing pressure within the tanks. Properly engineered fixed water spray protection provides effective cooling of tanks to prevent pressure build-up.
- 3. Positive air turbulence should be provided to hasten dilution of escaped gas to make the mixture too lean to burn. Water spray, without dependence upon wind to assist it, provides sustained air movement which hastens the dilution of escaped LPG.

- 4. Additional inert vapor should be provided to speed the dilution of escaped LPG. Water spray is an abundant source of such inert vapor, the finer droplets in the spray vaporizing to produce inert water vapor.
- 5. If escaped gases ignite, the wide and evenly distributed pattern of fine water droplets from Grinnell ProtectoSpray nozzles permit safe, controlled burning of gases.

For any fire protection problem, call on Grinnell. There is a Grinnell Fire Protection System for every fire hazard. Grinnell Company, Inc. 272 West Exchange Street, Providence, R. I.





Manufacturing, Engineering and Installation of Automatic Sprinklers since 1878_

TYPES AND USES OF FIRE EXTINGUISHERS

Dry Chemical



A—Liquid carbon dioxide.

Dry compound.

The modern dry compound extinguisher is highly efficient on oil or vapor fires. It is as good as either foam or carbon dioxide on Class "A" fires and can be used with perfect safety on Class "C" fires. It is particularly useful in conjunction with fog on large fires, having better spread and carrying power than car-

bon dioxide. The sodium bicarbonate powder is specially treated to render it water-resistant. Because of the directional drive of the powder, the extinguisher can be used in a high wind. Since the powder is visible, its path can be observed and can be directed to the best advantage. If not all of the charge is used, the remainder is available for as much as an hour, before the pressure leaks out.

Operation

Carry extinguisher to fire and set down. Pull locking pin, and turn valve wheel to left. Aim nozzle at base of fire, and squeeze the grip. Follow fire upward in the case of three dimensional fires.

Action

Turning the valve wheel to left punctures the pressure disc in the carbon dioxide cartridge, pressuring the outer chamber. Squeezing the grip-valve permits the powder to be blown out of the outer chamber. The powder has some cooling effect in itself, and absorbs additional heat in decomposing to give off carbon dioxide which smothers the fire.

Use on Fires

The full size (20 lb. to 30 lb.) dry compound extinguisher is rated at 8 to 10 ft. discharge but, under average conditions, will do better. It is not necessary, and sometimes less effective, to approach the fire too closely. For use on the various classes of fires, it may be rated as follows:

Class "A"-Useful for control.

Class "B"-Excellent on all.

Class "C"-Excellent on all.

Carbon Dioxide



A—Carbon dioxide gas. B—Liquid carbon dioxide.

The carbon dioxide extinguisher, which is newer than the soda-acid, carbon tetrachloride, or foam extinguisher, combines the best features of each for petroleum property service. It is not suitable for Class "A" fires because it has little or no cooling effect but will control small ones.

It will extinguish all Class "B" fires that can be handled by foam or carbon tetrachloride, as well as being suitable for vapor and three dimensional fires that cannot be handled by the others. It possesses the disadvantage that the gas stream is readily deflected in strong winds. However, because it leaves no residue it is especially suitable for use in indoor locations where wind is not a factor.

Operation

Carry extinguisher to fire and aim horn at fire. Pull locking pins if present and open valve or squeeze trigger or grip. Always aim at base of the fire and follow upward if three dimensional.

Action

The pressure of 850 psi (at ordinary temperature) forces the liquid carbon dioxide from the bottom of the extinguisher through the internal riser pipe out of hose and nozzle.

Use on Fires

The effective range of the gas is from 3 to 5 ft., preventing the use of the extinguisher or widespread fires. In conjunction with fog, the extinguisher is usable on much larger fires than when used alone. For the various classes of fires, the carbon dioxide extinguisher is rated as follows:

Class "A"—Controls small fires. Class "B"—Useful or all fires.

Class "C"-Excellent.

Carbon Tetrachloride



The carbon tetrachloride (vaporizing liquid) extinguisher has been a useful piece of equipment during the years it has been available. It still is useful in some locations. It has several faults, however, that justify its replacement by more generally useful extinguishers for most services.

Operation

Carry to fire, turn handle to release catch and pump, directing stream at base of fire or on side-wall of container.

Action

A double action pump takes suction regardless of the position of the extinguisher and discharges a practically continuous stream of liquid. The heat causes the fluid to evapor ate instantly, forming a heavy gas which will not burn nor support combustion.

Use on Fires

The discharge is rated at 20 to 30 ft. but will not be effective at such ranges except in the hands of an expert. As with other extinguishers, it is better to approach as near as possible to the fire before starting to pump. For various classes of fires, the carbon tetrachloride extinguisher may be rated as follows:

Class "A"—Useful on small fires. Class "B"—Useful on small fires.

Class "C"-Useful.

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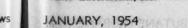
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BRONZE "L.P.G." GATE VALVE (Upper left) Fig. 8375. With inside screw rising stem. Sizes 1/4" to 3/4" taper solid wedge; 1" to 3" taper double wedge.

BRONZE "L.P.G." HORIZONTAL LIFT CHECK VALVE (Upper right) Fig. 8158. Screwed ends, screwed on cap. Renewable special composition disc. Available in sizes from 1/4" to 3", inclusive.

BRONZE "L.P.G." ANGLE VALVE (Lower left) Fig. 8151. Screwed ends, union bonnet. Sizes 1/8" to 3", inclusive.

BRONZE "L.P.G." GLOBE VALVE (Lower right) Fig. 8150. Screwed ends, union bonnet. Sizes 1/8" to 3", inclusive.

POWELL "L.P.G." VALVES-for handling Butane and Propane Gasesare rated 400 pounds W.O.G. Globe, Angle, and Horizontal Check Valves are fitted with renewable special composition disc-and are inspected and listed by Underwriters' Laboratories, Inc.

You're always the winner when you select Powell Valves. For every Powell Valve gives championship performance. They have a prize winning record of dependability since 1846.

And there's good reason why Powell Valves are always way out in frontyear after year. Powell has probably done more valve research, solved more valve problems and makes more types of valves than any other organization in the world.

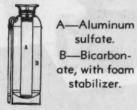
Shown here are just a few of the Powell Valves that can help you checkmate the high cost of maintenance and replacement. They're available through distributors in principal cities. If a distributor is not located near you, just write us. We'll be pleased to tell you more about these valves-and our complete line. The William Powell Company, Cincinnati 22,

CONTROLS FOR THE LIFE LINES OF INDUSTRY

108th YEAR

TYPES AND USES OF FIRE EXTINGUISHERS

• Foam



For many years the foam extinguisher has been the standby of the petroleum industry. It is useful on many fires, particularly those in

pans, tubs, or other containers, where there is sufficient outage to permit discharging the foam against the inside wall of the container. However, foam, especially relatively small quantities, is adversely affected by water or soda-acid discharge. Alcohol or acetone rapidly dissolves foam. Unusually high application rates and large quantities are needed.

Foam extinguisher is practically useless on three-dimensional fire.

Operation

Carry extinguisher to fire and invert, directing stream from hose at base of fire, against inside wall of container or form a spray by holding a finger loosely against the nozzle.

Action

The solutions mix, and, by a chemical reaction, form carbon dioxide gas. The stabilizer in the bicarbonate ("B" solution) holds the gas in the form of bubbles. The gas has no effect other than to cause the foam to float

Use on Fires

The stream is rated at 30 to 40 ft. but seldom can be directed effectively at such range. For the various classes of fires, the foam extinguisher is rated as follows:

> Class "A"—Useful. Class "B"—Useful. Class "C"—Do not use.

Soda-Acid



A—Sulfuric acid. B—Sodium bicarbonate in water.

The soda-acid extinguisher has little or no place on oil properties. It is dangerous to use on electrical fires because of the conductivity of the water stream resulting from its high salt content. Likewise, while the skilled fireman can use it effectively on a limited number of types of oil fires, it may cause a spread of the fire in the hands of the unskilled person. Generally, it may be considered that the soda-acid extinguisher is usable only on small Class"A" fires and only to the extent that 2½ gals. of water from any other source can be effective, if properly applied.

Operation

Carry extinguisher to fire and invert, directing stream from hose at base of fire.

Action

When the extinguisher is inverted, a lead stopple drops from the acid bottle, permitting the acid and the sodium bicarbonate solution to mix. The resulting chemical reaction results in the formation of carbon dioxide gas which exerts pressure inside the extinguisher forcing the stream of water through the hose.

Use on Fires

The discharge from a soda-acid extinguisher is rated at 30 to 40 ft. but seldom will be effective at such ranges. It is better to approach as near as possible to the fire before inverting the extinguisher. For the various classes of fire, the soda-acid extinguisher may be rated as follows:

Class "A"—Useful. Class "B"—Do not use. Class "C"—Do not use.

• Water Spray (Fog Nozzle)



The primary essential to be kept in mind when selecting fire control equipment is its field of usefulness and its capacity. Water fog has been found very satisfactory for the purpose of protecting surroundings and to control the intensity of the fire.

Operation

Combination type spray nozzles that also provide a straight stream, for reach and hitting power, are most useful because they can be used not only to knock down fires under pressure but also to provide water screen protection necessary to make shutoff valves accessible.

Use on Fires

Spray nozzles to protect plant storage tanks may be selected on the basis of the coverage obtained at the actual nozzle pressure available with the understanding that fire department boosters may be able to increase their output and coverage.

A KENTUCKY LP DEALER TELLS WHY HE SELLS CALORIC 645 RANGES AND DRYERS





Mr. W. H. Crawford Farmers' Supply Co.

"I make extra dough buying the extra value of Caloric Ranges and Dryers direct from the factory"

> Buying direct from the factory means bigger profits for Caloric dealers . . . no middleman to cut the take. Here are some other advantages of being a Caloric dealer.

> A Constant Pricing Policy . . . always the same for every dealer.

> Fifty-two Warehouses . . . speedier delivery. faster service, no inventory problem.

> Unmatched Advertising . . . the heaviest concentration of sustained advertising in the entire gas range industry.

Dynamic Merchandising Program . . . marketing helps and a point of sale program making the most of Caloric features.

Dione Lucas . . . Gas Cooking TV Showhalf-hour weekly in more than 40 markets. A national TV star selling Caloric for you.

Financing . . . an extra-liberal Caloricfinanced floor plan.

The Name of Caloric . . . the brand name housewives know for modern, matchless

Make sure you sell Caloric ranges and dryers. For complete information, check your Caloric representative.

Caloric CALORIC STOVE CORPORATION, TOPTON, PA.

Problems for Discussion at Thirteenth Safety Meeting

The problems presented herewith necessarily apply to situations which may be encountered in almost any operation. Not all of them apply specifically to fires in L. P. gas and gas equipment. As a matter of fact, most of the fires which your organization will need to deal will not be L. P. gas fires. They will be just plain ordinary fires that will need to be controlled to protect a tank from being affected, or just to protect somebody from the results of fire.

You and the fire department have much in common. They have a fire marshal, or someone else who is designated to figure out where fires might start, and then finds the best possible way to reduce or eliminate the hazard. Any one of your plant employes should be trained so he could step into that fire marshal's position and do a fair job, as far as the normal "exposures" at your plant or at your customers' premises are concerned. These problems are typical, but there are many more possible situations, some of which are peculiar to your own operation.

We hope that these problems will serve to stimulate the thinking of the plant employes, and we hope that every man on the staff will say, "I can give you a better problem than that." Which is all very good—his problems will be more closely related to the company operations than those that come from a printed page. Such genius should be encouraged.

Problem 1

You are making deliveries with a beautiful new streamlined bulk truck. You park beside a customer's tank, chock your wheels, and reach for the latch on the door of the cabinet enclosing the meter and hoses. You discover that the door is hot. There is a fire inside the cabinet. What do you do, and particularly what do you not do?

Problem 2

In attacking a small Class A fire with a dry chemical extinguisher, which way do you approach in relation to wind? At what point do you direct the stream from the extinguisher? Can you be sure that this fire will not break out again after you have killed the flame with the powder? Let's have the rest of the procedure. How does dry chemical or carbon dioxide extinguish a fire?

Problem 3

You are passing a trailer park in the far outskirts of town. A trailer is burning merrily, and the fire department has not yet arrived and you do not hear any sirens. While you are trying to help get this fire under control, the heat causes the pressure relief valve on a cylinder at the next trailer to let go with a bang. The gas ignites and you note that the flame strikes directly against the end of the trailer. Let's keep the fire from spreading. What do you do? By the way, which direction do the pressure relief valves on your domestic cylinder installations point? Do you think this should have some attention?

Problem 4

You are rolling down a narrow road on your delivery route. Suddenly you notice that there is a car on fire a few hundred feet ahead. Give the details on how you would handle this situation. Now—you have rescued the beautiful damsel, but the charge is all gone from your fire extinguisher. What do you do next?

Problem 5

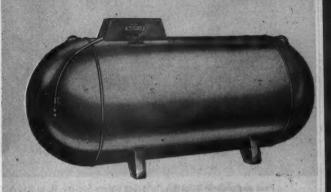
This isn't supposed to happen, but let's consider that it might. While filling a bulk truck, a leak develops at the pump, which is located six feet from the end of the bulk plant storage tank. The gas ignites, exposing the end of the tank to high heat. You have a 20 lb. extinguisher and a 1-inch hose with fog nozzle handy, and the driver has another extinguisher on his truck. Let's get this situation under control quick. Who does what, with what equipment, and in what order?

Problem 6

The company office is equipped with a sheet metal waste basket large enough to hold a week's accumulation of scrap paper, direct mail advertising, and used carbon paper. Someone adds a lighted cigarette to the collection, it contacts the carbon paper, and things happen fast. There is a mop bucket in the toilet, and a hand fire extinguisher in the stock room. Two strong men rush for the equipment, and when they get back they find that the good looking bookkeeper has put the fire out. How?

Any way you Look at it

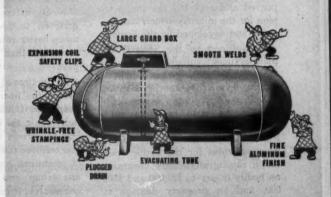
a time to the mile



QUALITY YOU CAN SEE

It's true, LP-Gas tanks of all makes must pass certain Code requirements to insure customer safety. But when you compare Buehler, you'll discover a vast difference in quality, workmanship and in extra features that make it easy to sell. You'll discover the smoothest, best looking tank you have ever seen; wrinkle-proof stampings and smooth uniform welds. You'll note that an extra large guard box with hasp for locking is designed to house all fittings including regulator. These and a dozen other attractive features are provided at no extra cost for customer convenience.

You'll discover, too, the word BUEHLER on the name plate, the sign of America's leading LP-Gas plant. Yes, any way you look at it, it's "Quality You Can See".

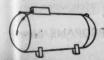


CODED CONSTRUCTION API-ASME OR ASME-U69

BUEHLER

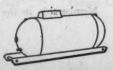
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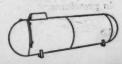














Past and present directors, L/P Gas Safety Society (L to R), A. C. Presley; Dominich Campora; J. L. Potter, Coordinator with Western Liquid Gas Association; Bert King, president; L. M. Rose; G. B. Legg. Director M. F. Van Horn was absent.

SAFETY Is the Key To Lower Cost Insurance

By Carl Abell

THE officers of the L/P Gas Safety (formerly the Society for the Advancement of the California L/P Gas Industry, Inc.) have recently released information which they believe to be the most important news that has yet reached the liquefied petroleum gas industry. Specifically it indicates that the underwriters of the London market, the world's largest source of insurance, have approved and accepted the insurance plan for the industry which was proposed and developed by the Society.

As outlined by the Society, the plan includes a number of features for which the industry has long been fighting—the true experience rating of L. P. gas distribution as a separate classification with premium rates based on that experience; the screening of risks to establish the lowest practical rates for the better operators; raising of primary coverages on bodily injury to \$25,000 and \$50,000, and on property damage to \$25,000; a steady and continuing market for selected risks in L. P. gas.

While the plan as set up is of immediate benefit to the members of the Society, it is so designed that it may be extended to those who may later qualify under the terms of the plan. The sponsors believe that establishment of these favorable terms and rates by the world's largest insurance writers has opened the way for the stabilization of the present chaotic market for L. P. gas risks, and that the program will save the industry many thousands of dollars annually in premiums.

The Society for the Advancement of the California L/P Gas Industry. Inc., a non profit corporation, was organized four years ago by officers, directors, and members of the Liquid Gas Dealers Association of California. Its purposes, as stated in its articles of incorporation, include cooperation with the members' organizations to develop that degree of operating efficiency and safety which will qualify each member for the most favorable insurance rates available. By extension, the Society has gone on to develop a program to make better rates available on these coverages than have existed in the past.

At the time of the Society's organization, the insurance situation was desperate. It was apparent that, as individuals, the operators were helpless to correct the situation, but it was believed that if a sizeable volume of premiums could be assembled in one group, and channeled through one source, it could be made sufficiently attractive that some insurance company would provide satisfactory insurance on a basis related directly to industry experience—a situation that obviously did not exist at that time.

The Society was established as a separate corporation for several reasons. Uppermost was the feeling that a society created especially to do a job had much better chances of success than would a committee of the dealers association. There was also the probability that members of the dealers association.

Membership in the Society is re-

stricted to L. P. gas distributors and dealers whose facilities and operations meet the safety standards established by the Society and the Division of Industrial Safety. This is determined by an engineering inspection of the applicant's operation. These members are eligible for insurance at the most favorable rates available to the Society, and for such future reductions of rates as may be developed consistent with the experience of the Society group and with the member's individual loss record. which is kept by the Society as well as by the insurance carrier.

From the beginning, close contact was maintained with the California State Insurance Commissioner's office and with the California Division of Industrial Safety, both of which have reflected a sincere interest in the aims of the Society. The Division of Industrial Safety callaborated in the development of the standard safety regulations promulgated by the Society, as well as rendering assistance in working out the five check sheets included in the inspection system covering the facilities and operations of applicants for membership.

The first job of the Society was fact-finding—analysis of the conditions responsible for the unsatisfactory situation then existing, and compilation of facts that would justify a more favorable program.

It was found that among the approximately 470 licensed casualty insurance companies in the United States, comparatively few were willing to write casualty insurance on L. P. gas operations. It was generally felt that this type of risk required inspection prior to acceptance, and



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Everywhere you look, you'll find a ready-made market for BS&B Propane Systems ... and you'll find these quality-built propane systems give you selling points that assure your customers years of trouble-free service! They're tested and inspected thoroughly, all during manufacture. For fast sales, easy installation and positive customer satisfaction, sell BS&B "Perfection" Propane Systems!



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Stop awkward unloading...minimize fire danger! New BS&B Unloading Rack makes walking sure and easy. Needs only amall space, has ladder or stairway on left side, right side or front as you order. Loading drop folds out of way. Shipped knocked down, cut and marked for easy erection.

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Plant inspection includes checking all storage and working equipment as well as all delivery trucks.

policing throughout the life of the policy. This required specialized training for inspectors, and it was apparent that the expense of maintaining an inspection organization would be prohibitive unless most of the insurance could be concentrated in the hands of a limited number of companies. This concentration of accounts on a widespread scale was hardly possible.

In certain localities in the East, where LPG plants are closer together, there had been some effort on the part of agencies to provide their own inspection service, but the basic problem had not yet been solved, because nobody knew what the proper rate structure for the industry should be. L. P. gas distribution had never been under true experience rating. It was rated with "petroleum products," and no recognition was given to the effect of the almost universal adoption of the safety equipment and widespread following of safety practices advocated by the National Fire Protection Association, the National Board of Fire Underwriters, the Liquefied Petroleum Gas Association, the American Gas Association, and other organizations whose influence contributed to the outstanding safety records of the better operators.

Another factor that influenced the judgment of the companies that were not in position to write LPG insurance in volume was the "catastrophe exposure"—the fear that some extensive disaster, such as those that occurred at Newark and Texas City some years back might wipe out their reserves and perhaps seriously handicap the company. It was not clear,

and our industry had failed to make it clear, that such risks do not apply to local distribution of L. P. gas, because no such huge quantities of fuel are involved.

Then there was the matter of excess liability coverage, which had in the past few years become an increasingly vexing problem to insurance companies, and a source of extra expense to LPG operators, on account of the growing tendency of juries to award astronomical damages in suits arising from all sorts of accidents in which corporations or insurance companies were on the paying end. Most of this excess coverage eventually found its way through underwriting channels to the London market, still under the handicap of being lumped with petroleum products risks, to which the L. P. gas distributing industry is not directly related. The cost of reinsurance in Lloyds was high because of the excess coverage required for disaster coverage in insuring refineries. This burden was shared by all the classes covered under "petroleum products."

The overall picture was complicated by the fact that most insurance companies were caught in a bad financial cycle resulting from inflationary tendencies, low earnings on invested reserves, and the need for higher reserves to meet the higher judgments awarded by juries. Under this financial strain, many insurance companies were more interested in reducing their risks, even at the cost of reducing their premium volume. than in going into any new ventures. It was a bad time to try to introduce any proposals of lower premiumsfor the most part, the L. P. gas insurance they were willing to write was accepted at the excessively high premiums with which most gas distributors are familiar. But now and then an insurance company would issue a policy at a favorable rate, as special favor to an agent who had given the company an outstanding volume of profitable business in other lines. In many cases these same companies declined to renew the policies for the L. P. gas distributors, leaving them high and dry to shop for coverage at whatever rates they were required to pay-sometimes far above the manual rates.

It was obvious that the root of the

difficulty was the absence of a rate structure based on the specific experience in the distribution end of the L. P. gas industry, and that the situation could not be corrected until such a firm foundation had been developed. With the nucleus of a group of interested distributors who pooled their insurance through the Society in sufficient volume to attract favorable rates, records of losses in relation to premium volume were compiled. These operators were pre-selected as good risks, and Cravens, Dargan Co.'s Pacific Coast office, which had been most sympathetic with the Society program, cooperated by extending premium credits through the Society on the comprehensive liability insurance. Other coverages were placed wherever the most favorable rates could be secured. Through the four year period, some of these arrangements were improved. The following examples, the first of which is typical, and the second considerably better than the average, show what has been accomplished by quantity purchasing through the Society.

Policies were issued to Operator A at manual rates on May 22, billed at \$2587.60. A credit of \$897.72 was issued on July 25, following inspection of facilities and operation, thus reducing the operator's insurance cost to \$1707.88. Out of his saving the operator was billed back by the Society in the amount of \$284.64 for his membership and service fee. The operator's net saving was still nearly 23%.

In the second example, Operator B paid the following net costs for coverage through the Society in 1953:

	The state of the s
Fire insurance	\$300
Workmen's Compensa	tion 175
Casualty liabilities	1800
Bonds	20
Physical damage	741.87
Total cost	3036 87

The last insurance statement of this operator before he went into the Society showed that he paid \$5500 for lower hability limits than are now in force. His total savings on his current insurance program amount to more than \$4000 per year.

Careful and complete experience records have been kept on all policies issued through the Society program

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Oklationa City, Oklahoma Sales Luipment Company 418 South Robinson

Omaho, Arbraska Anco Manufacturing & Supply Co. 1701 North \$2nd Street

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JANUARY, 1954

over a period of four years. The insured operators were all selected risks—they had to be to become members of the Society and get the advantages of the Society rates. The loss history of the group is shown in Table 1

The operators included ranged from small to large, and in the final vear included coverage of 83 plants. In relation to premiums paid, the loss ratio was exactly 9.6%. It is a generally accepted principle in developing rates for casualty insurance that a 45% loss ratio is satisfactory, and that at about 55% it is time to increase rates. The rest of the premium goes into the cost of doing business and establishing the necessary reserve to cover catastrophe losses. This seemed to offer clearcut vindication of the Society's contention that by proper selection of risks, the L. P. gas industry offered a desirable field for expansion by the insurance companies, and that the business could be handled at a profit at rates considerably below the current manual quotations. The one problem was to make it possible for the insurance companies to pre-select the desirable risks, at the same time upgrading the less desirable risks so they may eventually qualify for the reduced rates.

Larger Carrier Needed

While the test program had been highly satisfactory both to the Society and to the insurance carrier, it was rapidly growing beyond the limitations of the one small company that was involved. It became necessary to find a larger casualty company that was willing and able to undertake the coverage on a much larger scale. For various reasons the 53 American casualty companies who were consulted on the program were unable or unwilling to enter into an agreement to handle the insurance. The Society had been in touch with the London underwriters, who seemed



Inspection also includes spot checks of customer service units and appliance installations.

interested on the basis that this plan offered pre-selected desirable risks. They invited the Society to send a representative to London to present the case. As insurance counsellor for the Society, Hank Schneider made the trip. He did not go barehanded. His presentation was two inches thick, and for the first time in history the world-wide insurance underwriters looked at an encyclopedic analysis of the liquefied petroleum gas industry compiled from the standpoint of insurance risks. The BUTANE-PROPANE News Safety Program occupied a prominent place in the section devoted to safety training. The whole book backed up the Society's contention that the distribution of L. P. gas is entitled to treatment on its merits as a desirable insurance risk, and that good operators are entitled to preferential rates, based on engineering inspection and evaluation of safety efforts. The underwriters approved and accepted the program on that basis. They agreed to a continuing insurance program under the terms outlined earlier in this article.

The insurance available to Society members includes a normal compre-

hensive liability contract on the casualty lines, with no abnormal exclusions. The comprehensive general liability portion includes products, manufacturers, and contractors liability coverage in the standard form, to which is added the public liability and property damage coverages required for operation of the company vehicles. This casualty coverage represents from 60 to 70% of the cost of insurance in most large operations. and as high as 90% for small dealers. Excess coverages are included in the they may eventually qualify for the program. Other necessary types of insurance are written separately, to permit taking advantage of the best possible coverage from insurance companies specializing in these types of coverage.

Qualified Adjusters

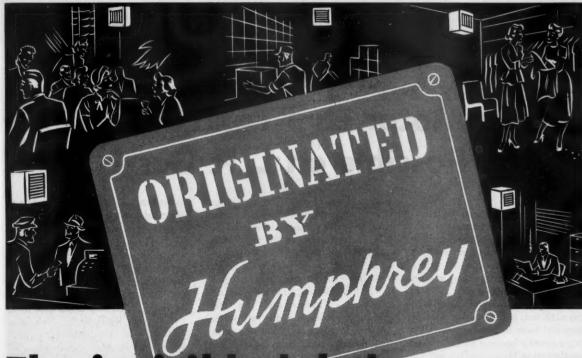
Prompt and satisfactory adjustments, and keeping claims out of court if possible, are an essential ingredient of any satisfactory casualty insurance program. The Society plan includes making use of qualified adjusters in strategic locations, who are authorized to sign drafts in settlement of claims. All claims filter through the office of Ken James, supervising adjuster and claims counselor for the Society, for supervision and recording.

In defining the place of the L/P Gas Safety Society in the industry, President Bert King has this to say: "The program of the Society must be set up on an industry level to utilize the combined strength of the dealers in reaching a permanent solution of the insurance problems which, as individuals, they would be helpless to solve. The Society is not an end in itself. It is only the means to an end—the instrumentality through which the dealers may work to help themselves.

"The weapons with which the Society has accomplished its results to date have been facts and statistics, and the record of continuous efforts of the members to achieve safety throughout their individual operations. Our work can continue to be as effective as the dealers make it through their participation in and support of the program. It will still require united effort over a period of years to accomplish nation-wide permanent stabilization of the LPG insurance market."

TABLE 1 - LOSS HISTORY FOR FIRST FOUR YEARS

	3. 100K 12K	Service of the servic
Number	Total Cost	Average Cost
97	\$ 8,839.98	\$ 91.13
9	18,386.68	2,042.96
0	0.00	0.00
25	10,597.69	423.91
o o sales (a)	Bukerl !	NATIONALLY .
131	\$37,824.35	\$ 288.74
	97 9 0 25	97 \$ 8,839.98 9 18,386.68 0 0.00 25 10,597.69



The invisible label

Gas Unit Heater!



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Humphrey Series A Automatic Gas Unit Heater, Choice of Rotor or Propellor fan, 65,000 to 200,000 b.t.u.



Humphrey Model 40-G, compact Gas Unit Heater in 17" x 223%" x 13%" cabinet. 40,000 b.t.u.

Twenty-five years ago, Humphrey, already a leader in producing gas heating equipment for the home, originated and marketed the first Gas Unit Heater for business and industrial use.

In the years since, Humphrey engineers have led the way in developing improvements in design and construction required to meet ever higher standards of dependability and efficiency.

Heat exchangers with unrestricted, non-baffled interiors, for service-free operation without cleaning—stainless steel burner heads that increase service life and eliminate up to 100 lb. of dead weight—non-clogging pilots that operate dependably even under unfavorable conditions—all these and many_other features have been Humphrey developed, on the basis of Humphrey experience.

Today Humphrey continues to lead in providing the refinements of construction that assure top efficiency and dependability.

Now as always, it is good business to make the Humphrey Gas Unit Heater your first choice. When you install a Humphrey you can be sure you are putting in the newest and the best.

GENERAL GAS LIGHT COMPANY

KALAMAZOO, MICHIGAN



Are Uniform Motor Fuel Tax Laws Possible on L. P. Gas?

ONLY the person who has tried to drive across the continent in a vehicle burning L. P. gas can realize the great blessing of the uniformity of the gasoline tax laws in our various states. The motorist burning gasoline rolls into a filling station, fills his tank, pays the bill which includes the gasoline tax, and is on his way. He does not have to secure a permit or pay a penalty because he comes from another state. He goes on his way like a free American citizen. In the next state, or in the next 47 states, the procedure is the same.

Try and do that in a vehicle-automobile or truck-burning L. P. gas. Let's consider the situation in Arizona, which undoubtedly has the world's worst combination of laws and regulations this side of the iron curtain, as far as passing through the state in a motor vehicle burning L. P. gas is concerned. Your car is searched by the border guards who are enforcing quarantine against certain agricultural pests. They discover your propane tank, and call the state highway patrolman who is on duty at the check station. You do not move your vehicle until you plot your course across the state and pay tax in advance, based on an arbitrary formula which may not be even close to the mileage performance of your vehicle. You then receive a tax receipt, and a permit to purchase a designated amount of L. P. gas. This permit must be surrendered at the port of exit within a specified time. We have an authenticated record of one traveler who entered Arizona with a tank full of propane purchased in California, on which the California tax had been paid. That made no difference. The tax was due, at 5¢ per gallon, on the amount of fuel necessary to cross the state by the selected route, at an estimated consumption of 8 miles per gallon. The car in question was getting 14 miles per gallon, but that also made no difference. But it did make the tax on the fuel required to cross the state 9¢ per gallon. The customer-or should we say victim-ran out of propane near Winslow. Getting any kind of LPG between Winslow and the New Mexico border, outside of normal business hours, is what the army would call a problem in logistics. The customer completed his journey across the rest of Arizona on gasoline, on which he also paid tax (but only on the amount purchased).

The search procedure was omitted in New Mexico, but it was necessary to secure a permit in order to purchase LPG, and pay the estimated tax in advance. The customer balked on this, since the tax was estimated on the basis of 2½ miles per gallon—it says so in the law. Even the border patrol are out of sympathy with this inequity, and hope that in the near

future the law may be made fair to motorists and truckers alike.

After Arizona and New Mexico, it is a real relief to enter Texas, where the propane tank may be filled at service stations with no formality except to sign a receipt for the fuel. A duplicate copy of the receipt is given to the customer as proof that he is operating legitimately. Nebraska. Kansas, and Colorado each have variations of the "tax-in-advance" deal. In Colorado, you buy a permit to purchase a specified number of gallons from any state highway patrolman, either at the border, or wherever you can find a patrolman. prior to filling your tank. You buy one permit for the amount you think you will require for each individual fill. If you need a permit while on the road, you must first locate a patrolman, who is probably out on the highway doing his job. Don't let it worry you. Just drop in at the nearest police

(Continued on page 123)



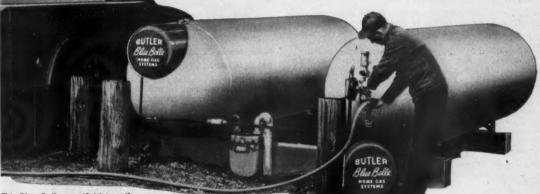
Motor fuel taxes in various states.

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LOADS



This Blue Belle manifold installation serves a year-around commercial load.

Look at these two important ways that Butler Blue Belle LP Gas systems help you balance summer and winter loads:

- Blue Belles help you sell more big year-around commercial and industrial loads that need large, manifold installations. With end-fitted Blue Belles, you make manifold installations unmatched for neatness, efficiency and dependability.
- Blue Belles help you sell more truck and farm tractor loads that require
 the system tank to be elevated for a liquid pump. Even when elevated
 for this pump, Blue Belles make low, convenient installations that are
 easy to service.

Easy-to-reach end fittings make Blue Belles easy to service on any type of installation. This saves your drivers valuable delivery time every day of the year.

Quality-built Blue Belles give your customers dependable service that stimulates the sales of gas and appliances—encouraging users to recommend your gas service to their friends.

Learn how Butler Blue Belles can help you bring summer and winter loads into better balance. Write today for full information.



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Manufacturers of Oil Equipment • Steel Buildings • Farm Equipment • Cleaners Equipment • Special Products
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Special Regulations, If Any, Applying to Transient or "Single-Trip" LPG Burning Vehicles Crossing the State

Alabama . . . Purchase tax paid fuel each trip.

Arixona . . . Pay tax on basis of 4 miles per gallon at 5¢ for each gallon at port of entry, on a one-trip fuel permit for one way or round trip.

Arkansas . . . Pay tax at port of entries or at time and place of purchase.

California . . . None.

Colorado . . . Permit required.

Connecticut . . . If refueled in the state, tax is paid to the supplier.

Delaware... Tax collected by the seller at time of sale on any motor fuel delivered for use in a motor vehicle licensed for highway use.

Florida . . . May enter state with a maximum of 50 gallons, or gallons to the capacity of the regular fuel tank attached to the vehicle, whichever is the lesser, and upon which the tax has been paid to another state.

Georgia . . . Dealers are required to collect tax and remit on a monthly report required of them.

Idaho... May enter state with maximum of 20 gallons of motor fuel, or the capacity of the regular fuel tank as installed by the manufacturer, whichever is lesser. Pay tax to fuel dealer at time of purchase.

Illinois . . . Any LPG placed in vehicle for its operation on the highway is subject to tax at that point.

Indiana . . . None.

lowa ... Permitted to enter with 20 gallons. Should pay tax on the excess to Motor Vehicle Fuel Tax Division in Des Moines.

Kansas... Obtain special fuel clearance permit at a registration station or port of entry. Supply speedometer reading at time of entrance into state; the route and miles to be traveled in the state. Pay tax at the rate of 5¢ for every 5 miles or fraction thereof traveled or to be traveled in Kansas. Surrender permit at registration station or port of entry through which vehicle leaves the state and pay any excess as evidenced by speedometer reading.

Kentucky . . . No permit required or license necessary unless user makes as many as five trips in any month of the calendar year or 15 trips in a six month period of a calendar year.

Louisiana . . . Must purchase sufficient fuel to offset the amount consumed.

Maine . . . Pay tax to fuel dealer at time of purchase.

Maryland . . . None.

Massachusetts . . . No regulations other than registration.

Michigan . . . Tax applies at time of sale or delivery to vehicle.

Minnesota . . . None.

Mississippi . . . Must buy gas and pay tax, or only pay tax on miles covered in state if tanks are full when entering the state.

Missouri . . . None.

Montana . . . Either apply for use fuel permit or pay the tax to supplier within the state.

Nebraska . . . Single trip permits issued at ports of entry.

Nevada . . . Patrol collection if sighted, or collection at the pump if fuel is purchased in Nevada.

New Hampshire... Obtain user of fuel permit and file report with commissioner not later than 15th of calendar month report of total gallonage used within state. Pay road toll based on gallonage shown in report.

New Jersey . . . None.

New Mexico . . . Obtain emergency permit at port of entry and pay tax on the estimated amount of fuel to be used.

New York . . . Pay tax to fuel dealer at time of purchase. (Some cities may have restrictions.)

North Carolina . . . None.

North Daketa . . . Must make a report on form UF3—number of miles travelled and kind of fuel used and number of gallons use per unit in the state of North Dakota. However, if he is going to continue to come into the state beyond a trip or two, he must become a licensee.

Ohio . . . None.

Oklahoma . . . May enter state with maximum of 30 gallons. Tax paid to dealer at time of purchase. Interstate users also required to be licensed and file reports.

Oregon . . . Must have temporary license and use fuel emblem for each vehicle.

Pennsylvania . . . 50 Gallon Import Limitation.

Rhode Island . . . None.

South Carolina . . . On occasion trips into, out of or through the state, tax may be paid to dealer at time of purchase, for which user will receive a receipt. The receipt is valid for 24 hours for use of the fuel on the highways of the state.

South Dakota . . . Fuel must be secured from licensed dealers and tax paid at time of purchase.

Tennessee . . . User is responsible for reporting fuel use and payment of tax to Commissioner of Finance and Taxation.

Texas . . . Can come into state with 30 gallons tax free. Pay tax at time of purchase.

Utah . . . Pay tax at time of purchase.

Vermont . . . Reciprocal. No charges made unless a charge is made to Vermont residents.

Virginia . . . Buy from a licensed supplier who will include tax with purchase price.

Washington . . . Temporary permit required. \$20 cash bond must be posted.

West Virginia . . . Purchase fuel within the state or make a special return.

Wisconsin . . . None.

Wyoming . . . None.

Hawaii . . . None.

New Legislation Pending or Recently Changed

Idaho . . . As of Jan. 1, 1954, Motor Fuels Tax (Title 49; Chapter 7 and 262) replaced the Cross Weight Tax Law.

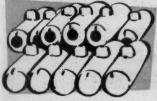
Kansas . . . H.B. 457, effective Jan. 1, 1954.

Montana . . . "Possibly bonding truck stops, dealers, and truck operators. Nothing definite at this time"—7/29/53.

Nebraska . . . As of Jan. 1, 1954, all motor fuels used in motor vehicles on highways are taxed at 6¢ per gallon. Prior to Jan. 1, only gasoline was taxed.

Wisconsin . . . Chapter 78 of the Wisconsin Statutes was created by the 1953 Legislature. (Chapter 510, Laws of 1953). This act effective Sept. 1, 1953.







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ELIMINATES PULSATIONS CAUSED BY
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LOW PRESSURE REGULATORS

- Provides steady, even pressure
- Fits either %" or 1/2" tubing
- Flared skirt protects against ice and sleet stoppage
- · Built-in bug screen keeps out insects

Now at last there's a simple means to eliminate those pulsations caused by long lengths of copper tubing attached to the vent opening of low pressure regulators. This new REGO Suppressor Assembly fits over the copper tubing at the outside end, quickly counteracts any tendency toward regulator pulsations and fluctuating gas flames.

The REGO Suppressor Assembly can be attached to either %" or ½" tubing. It has a flared skirt to prevent ice or sleet from forming over the tube opening, with a built-in bug screen to keep out all insects. Use of a hose clamp is recommended to secure the Suppressor Assembly against its unauthorized removal.

For any installation with a long vent line, you'll find this Suppressor Assembly improves the performance . . . gives greater customer satisfaction.

REGO is the registered trade mark of Bastian-Blessing Co.

the BASTIAN - BLESSING Company

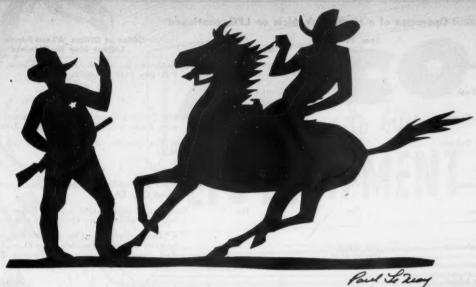
4201 West Peterson Avenue, Chicago 30, Illinois

PIONEER AND LEADER IN THE DESIGN AND MANUFACTURE OF PRECISION EQUIPMENT FOR USING AND CONTROLLING LP GASES

State Regulations for Regular or Frequent Operation of a Highway Vehicle on LPG

State	Spec. Permit or License	Bond Required	Office or Offices Where Permit or License May Be Obtained
Alabama	Yes		Gasoline Tax Division, State Department of Revenue, Montgomery 2, Ala.
Arizona	Yes	Cash or Surety	Any of 11 ports of entry (or) Use Fuel Tax Dept., Div. of Motor Vehicles, Arizona Highway Dept., Phoenix, Ariz.
Arkansas	Yes	Yes	State Revenue Dept., Motor Fuel Tax Division, State Capitol, Little Rock, Ark.
California	No	_	
Colorado	Yes	Yes	Motor Fuel Tax Div., Dept. of Revenue, 248 Capitol Annex, Denver, Colo.
Connecticut	Yes	No	Department of Motor Vehicles, Gasoline Tax Section State Office Building, Hartford, Conn.
Delaware	No	-	
Florida	Yes	\$3000 Minimum	Motor Fuel Tax Dept., State Comptroller's Office, Capitol, Tallahassee, Fla.
Georgia	No	_	
Idaho	Yes	\$500 Minimum	Motor Fuels Division, Office of Tax Collector, Capito Building, Boise, Idaho.
Illinois	No		
Indiana	Yes	Yes	Motor Fuel Tax Division, 141 S. Meridian St., Indian- apolis, Ind.
lowa	Registration required.	No	Motor Vehicle Fuel Tax Division, State House, Offic of Treasurer of State, Des Moines, Iowa.
Kansas	Yes	\$250 Minimum	State Commission of Revenue & Taxation, Motor Fue Tax Div., Statehouse, Topeka, Kan.
Kentucky	Yes	\$500 Minimum	Dept. of Revenue, Motor Vehicle Div., Motor Fuels Section, Frankfort, Ky.
Louisiana	Yes	Yes	Dept. of Revenue, Petroleum Products Tax Div., Stat Capitol Annex, Baton Rouge, La.
Maine	Yes	\$100 Minimum	Bureau of Taxation, Excise Tax Division, Augusta, Maine.
Maryland	No	_	
Massachusetts	Yes	-	Dept. of Corporations and Taxation, Div. of Excis Taxes, 242 State House, Boston, Mass.
Michigan	No unless vehicle is operated from LPG cargo tank.	-	If operated from LPG cargo tank, license is require and minimum bond of \$500 required—obtainabl from Department of State, Motor Fuel Tax Division Lansing, Mich.
Minnesoto	No	_	
Mississippi	Yes	\$50 cash deposit on vehicle of up to 19,000 lbs. \$100 cash deposit, vehicle 20,000 lbs. or over.	Motor Vehicle Comptroller, P.O. Box 1140, Jackson Miss.
Missouri	No unless supplied from own storage.	_	If operated from own storage, license and bond are re quired—obtainable from Dept. of Revenue, Moto Fuel Tax Unit, P.O. Box 300, Jefferson Building Room 302, Jefferson City, Mo.
Montana	Yes	No	Gasoline Tax Department, State Board of Equalization Helena, Mont.
Nebraska	Yes	No	Offices of County Treasurers for local vehicles, and a ports of entry for non-resident licensed vehicles.
Nevada	Yes	Yes	Nevada Tax Commission, Carson City, Nev.
New Hampshire	Yes	No	Road Toll Division, Motor Vehicle Department, Corcord, N. H.
New Jersey	Yes	No	Motor Fuels Tax Bureau, 107 W. State St., Trento N. J.

(Continued on page 76)



the law

One fundamental law in the LP-Gas industry ... for a successful operation, always have an adequate supply of quality product at a competitive price.

The Sid Richardson Gasoline Co. meets the spirit and letter of this law for its customers with:

- 1. Underground Storage for assured delivery in winter as well as summer
- 2. Segregation of tank cars to protect quality
- 3. Lowered cost of product through earned bonuses

Plus-real co-operation because we have no company-owned wholesale or retail outlets to divert our interest from your problems.

Write, wire or telephone for complete information.

Sid Richardson

GASOLINE CO.

629 FORT WORTH CLUB BUILDING FORT WORTH, TEXAS

Frequent Operation of a Highway Vehicle on LPG, continued

State	Spec. Permit or License	Bond Required	Office or Offices Where Permit or License May Be Obtained
New Mexico	Yes	Yes	New Mexico Bureau of Revenue, Gasoline Tax Division, P.O. Box 2180, Sante Fe, N. M.
New York	No statewide permit of however, cities have re		
North Carolina	Yes	Yes	North Carolina Dept. of Revenue, Gasoline Tax Division, Room 505, Revenue Building, Raleigh, N. C.
North Dakota	Yes	\$2000 Minimum	Fuel Tax Division, State Auditor's Office, Bismarck, N. D.
Ohio	No		
Oklohoma	Yes	Yes	Motor Fuel Division, Oklahoma Tax Commission, Oklahoma City, Okla.
Oregon	Yes	No	Secretary of State, State Capitol, Salem, Ore. (or) branches of Secretary throughout the state.
Pennsylvania	No unless a "Dealer-User."	_	If a "Dealer-User" must be licensed and post minimum bond of \$500—obtainable from Bureau Liquid Fuels Tax, Dept. of Revenue, 518 Finance Bldg., Capitol Group, Harrisburg, Pa.
Rhode Island	No	_	
South Carolina	Yes	No	South Carolina Tax Commission, License Tax Division, Box 420, Columbia, S. C.
South Dakota	No unless supplied from own storage.	_	If operated from own storage, License and Bond re- quiréd—from Division of Licensing, Motor Fuel Tax Section, Capitol Building, Pierre, S. D.
Tennessee	Yes	Yes	Gasoline Tax and Oil Inspection Div., Dept. of Finance and Taxation, State of Tennessee, War Memorial Building, Nashville, Tenn.
Texas	No		
Utah	Yes	Yes	Miscellaneous Tax Division, State Tax Commission, 118 State Capitol, Salt Lake City, Utah.
Vermont	No	-	
Virginia	No unless bulk storage is maintained.	_	If bulk storage is maintained, license and bond required from Bureau of Gasoline Tax, Div. of Motor Vehicles, 2220 W. Broad St., Richmond, Va.
Washington	Yes	Yes	Department of Licenses, Liquid Fuel Tax Division, Olympia, Wash.
West Virginia	No	Discretion of the Commissioner.	
Wisconsin	No		
Wyoming	No	_	
Territory of Hawaii	No	_	

States Which Collect a Motor Fuel Tax on LPG Burned in Farm Tractor Engines

Idaho . . . Not reported.

lowa . . . Tax collected, but is refundable.

Maine . . . "No record of any retail outlets supplying LPG as power fuel in highway motor vehicles and in engines in non-highway service in the state of Maine."

Massachusetts... Not taxed unless the tractor is also registered for highway use. No refund if used in farm equipment that is registered for highway use.

Michigan . . . "No tax if fuel is delivered directly to a farm tractor. Should the farmer fuel tractors, trucks, and/or passenger vehicles from common storage, tax applies on full delivery thereto, allowing refund on that portion of fuel consumed off public highways."

Minnesota... Tax collected, but is refundable. Truck operators who purchase special fuel (such as LPG) are required to be licensed as "bulk purchasers" and must pay the tax on all fuels purchased. Such fuels not used in motor vehicles are subject to refund.

New Hampshire . . . "No use of LPG in highway and non-

highway vehicles has been detected in this state." Paragraph 19 of the New Hampshire Motor Vehicle Road Toll Law imposes a tax on fuels when used to "propel motor vehicles on or over the public highways."

North Dakota . . . "No tax collected unless the tractor is used upon the highways, then the owner must be licensed the same as trucks."

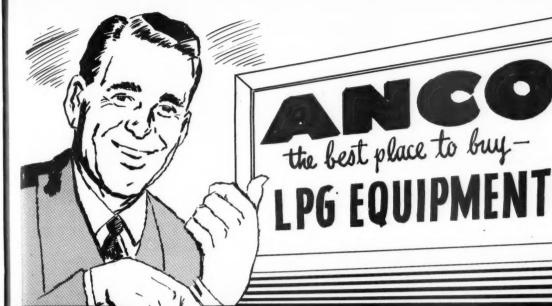
Pennsylvania . . . "Taxed only if farm machinery or equipment involves the use of the public highways more than 10 miles distant from the domicile of the owner of the machinery or equipment."

Rhode Island . . . Tax collected, but is refundable.

South Dakota . . . "No tax collected when fuel used for nonhighway purposes."

West Virginia . . . Tax collected, but is refundable.

Hawaii . . . "1¢ tax is paid on each gallon of LPG irrespective of where used, and is not refundable. If the use is in a motor vehicle upon the public highways an additional tax of from 5½¢ to 7¢ is paid."



HERE'S WHY

IMMEDIATE PICK-UP OR DELIVERY
FROM STOCK
CONVENIENTLY LOCATED
WAREHOUSES
QUICK DELIVERY ON PHONE
ORDERS
QUALITY PRODUCTS

ANCO

217 EAST ARCHER • TULSA, OKLA.

BRANCH OFFICES

MINNEAPOLIS, MINNESOTA . OMAHA, NEBRASKA . EAST ST. LOUIS, ILLINOIS

"Service to Customers"



... must be more than a Slogan

By Alex W. Bealer, III

A LITTLE over a year ago when Consolidated Gas Co. was formed from five independent LPG dealers in Georgia, the new officials took careful stock of what they had, and what they were selling.

Basically, of course, they were selling L. P. gas and L. P. gas appliances; at least, it was for these items that their customers paid them. This, however, was hardly enough to give them the rapid growth they needed to meet competition from over a hundred other aggressive L. P. gas dealers in the state. Analysis showed them, as it has every other LPG dealer, that their gas could offer little, if any, more than the gas of competitors. The sources of appliances available to Consolidated were, with few exceptions, also available to their business rivals. The logical conclusion, therefore, was that the only business factor they could absolutely control to their advantage was service.

But since all other Georgia dealers had figured this one out too, Consolidated had to go one step further. Their decision was to concentrate on the degree of service offered customers and prospects, for with the largest organization in the state they could, by emphasizing this point have an exclusive advantage.

In Consolidated, then, service like sales is a job for every phase of the company operation; everyone in the company is charged with making things easy for the customer, from first making it easy for him to buy, to making it extra easy for him to continue buying from Consolidated rather than from a competitor.

Salesmen, of course, are in the vanguard of the service crew, just as they are the opening wedge for all customer relations. Their main responsibility is providing services that facilitate the customer's decision to make his first purchase. Such services are the essence of simplicity, but they are awfully important.

For instance, Consolidated salesmen make it a point to tell each new prospect everything they can about their products and their company. The prospect is vitally interested in such information, for it forms a solid base on which he may make his decision. Full information, then, is considered a definite service.

Simple methods of getting in contact with a salesman are also services that work to the advantage of the company and the customer. Consolidated does this in several ways. Widespread, regular advertising, for one thing, lets prospects all over the territory know where a Consolidated salesman can be reached. Salesmen themselves contribute to this service. Every salesman is provided with a supply of self-addressed, stamped postal cards. One of these is left with each prospect, so that if a decision is made after the salesman leaves, the prospect has only to drop the card in the nearest mail box, and the salesman returns to close the sale.

Consolidated salesmen are also trained to provide service in the common meaning of the word. Each salesman, before starting out to punch doorbells, is given a month's training on the service and "GLO-

da



Claude G. Haugebook, vice president, and John T. McKenzie, division manager, huddle for a discussion on customer service. Mr. McKenzie once flew a private plane on a mission to give extra service to a customer.

PREST-O-LITE CYLINDERS for LP-Gas are your best buy

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When it comes to LP-Gas cylinders, your wisest, most economical investment is in the PREST-O-LITE Brand. For PREST-O-LITE Cylinders combine unsurpassed quality, low cost, and attractive appearance to satisfy the exact needs of LP-Gas users everywhere.

PREST-O-LITE Cylinders are rugged and sturdy for long, dependable service life. They're lightweight for easier handling at lower expense. Factory testing is in excess of requirements to assure maximum safety and performance. Every PREST-O-LITE Cylinder is deep-drawn to extremely uniform wall thickness. Durable aluminum enamel protects the cylinder finish indefinitely and reduces repainting costs.

For further information write or 'phone your nearest LINDE Office today. Ask for free booklet F-8187.



The terms "Linde" and "Prest-O-Lite" are registered trademarks of Union Carbide and Carbon Corporation.



Data remains easy to read throughout life of the cylinder. Large characters are deeply cut into an extra thick, wide flange on 60-lb. and 100-lb. capacity cylinders (into valve protecting head ring of 20-lb. and 40-lb. styles).



Superior anti-rust coating protects the cylinder bottom and interior of footring against corrosion—a valuable extra at no additional cost to you!



PREST-O-LITE Cylinders are available in the popular 20-lb., 40-lb., 60-lb. and 100-lb. capacity sizes, with or without valves. Other styles can be made to order.



You're Money Ahead with a

WEATHERHEAD

Automatic Bottle Filler

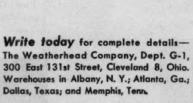
Pays for itself in a matter of days!

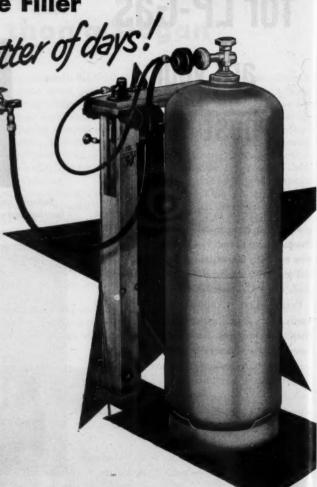
The arithmetic is easy—for every 100 cylinders leaving your bulk plant each day containing from a half pound to a pound of gas more per cylinder than the 100 pounds that you are paid for (and that's easy, too), you are losing the retail price of that much gas.

Overfilling is a danger in the plant or at the customer's installation and is costly to you. Many hundreds of Weatherhead automatic bottle fillers are now saving gas and man power, as well as assuring positive safety for bulk plant operators from coast to coast.

ACCURATE to within two ounces per hundred pounds... SIMPLE TO OPERATE because it starts with a push button, shuts off automatically the instant the bottle is full... EASILY INSTALLED on any beam-type scale... ECONOMICAL too, powered by LP-Gas vapor—a pound of propane is used to fill approximately 1,000 cylinders.







GAS" delivery trucks. He learns first-hand what service problems are likely to crop up along a route, and he is taught the proper solution. Such training is invaluable when he later calls on new or old customers who are already using L. P. gas. He is qualified not only to check their appliances, but also is given the chance to demonstrate that he knows whereof he speaks in selling an additional appliance.

Everyday, garden-variety service is, of course, the function of the regular servicemen in Consolidated. Their job is important, for installation of appliances can either back up the salesman's claims of superior

While installing appliances, the servicemen make it a point to keep greasy or dirty hands off of walls. After finishing a job, they meticulously sweep up any residue of wood chips or copper filings. On leaving a job. Consolidated servicemen are trained to make sure that a kitchen or basement is in the same or better state of cleanliness as when they entered it. In fact, they are taught to create the impression that the whole place has been improved because of their work; which, indeed, is quite

This policy is followed fully as carefully on outside storage system installations. Consolidated does far gleton, the tractor service expert in the company, makes certain that the equipment he carries will take care of any eventuality he may find on his regular calls.

His truck, therefore, is provided with a great deal more than spare parts for L. P. gas carburetors. Among other equipment there is a complete portable welding outfit which Mr. Singleton uses to weld drag bars, hitches and other items of farm tractor apparatus. The tractor service truck is on emergency call at all times to Consolidated customers for any job that may turn up.

Not only is such service greatly appreciated, but it builds up gas loads,

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Typical tractor conversion made by Consolidated Gas Co. A special tractor service truck is "on call" for all types of repairs to tractors and tractor equipment.

This simple "record of delivery form" is used by "GLOGAS" deliverymen to insure service to the customer. It is but one of many steps used to make "Service to Customer" more than a slogan.

service or seriously hurt the reputation of the company with a new customer. First of all, Consolidated servicemen are made cognizant of the fact that courtesy and consideration are definite services which are appreciated by everyone, and are too often lacking in many business relationships. In regard to this they follow Michaelangelo's statement to the effect that little things make perfection and perfection is no little thing.

For instance, all servicemen are extremely careful, when entering a house, to clean off their shoes. This little courtesy makes a good initial impression on almost any housewife. more on one of these jobs than merely dig a hole and put a tank in it. To preserve both a homeowner's temper and his grass, the first step in installing a storage tank is to remove the sod and pile it to one side. After this, the hole is dug and the tank lowered into it. When the job is done, the sod and grass are replaced in such a manner that one can hardly tell a hole was dug. Little things; yes, but the customers like it.

This sort of thinking is particularly apparent in the tractor service truck operated by the Montezuma Division of Consolidated, where most of the tractor trade is located. Norris Sinfor tractors that are not operating because some part needs welding are certainly not burning any fuel. When all is said and done, even a good Samaritan can take a practical viewpoint of things.

Special care is taken to see that the "GLOGAS" deliverymen of Consolidated know and practice the meaning of service, for these gentlemen have a great deal of responsibility for keeping customers happy and in the fold. After all, when everything is said and done the deliverymen have the most frequent and continuous contact with customers year after year of anyone in the company, and



are required to demonstrate more aggregate service than all the salesmen and servicemen put together.

Claude G. Haugabook, vice president of Consolidated, is responsible for fuel delivery in the company. With the able assistance of Carl Coslick, he has organized the delivery phases of Consolidated's operation so that it is almost impossible not to check every customer's storage system at least once a month.

To begin with, each "GLOGAS" deliveryman is assigned to a specific route, which is his sole responsibility. Also he is furnished with a looseleaf cover which contains simple forms, one per customer. On this form is space for the customer's name and address, the size of his storage system, and whether he uses butane or propane or a mixture. Also, a space is provided to show whether the customer pays cash or is charged.

Following this basic information are several columns in which the "GLOGAS" deliveryman notes the date he calls on each customer, the number of gallons he finds in their storage system, the number of gallons he puts in and how many gallons are in the system after filling.

By this simple device, then, every deliveryman is provided with a guide for his daily calls and a check on individual customer service. Since to err is human, the information in each of the route books is duplicated at the end of each day in a master call book in the branch office. Such duplication not only gives the deliveryman a welcome double check on his own records; it also furnishes the office with a ready means by which they can check a customer's fuel supply in the event of an emergency call. If the call alleges that no fuel is in the customer's system, a quick glance can tell if the system has been filled within the last couple of weeks. If this is true, then a serviceman, rather than the fuel truck, is sent out immediately and the trouble found and corrected all the sooner.

Carl Coslick, who is in charge of maintaining training for deliverymen, continually stresses the importance of seemingly minor aspects of filling a system. All deliverymen are taught to always respect the customer's property and take care not to ruin grass, shrubbery or that menace to fuel tanks, the common clothesline. In keeping with the spirit of service practiced by Consolidated

salesmen, "GLOGAS" deliverymen are also trained to give customers regular information, through printed material and calls, on new appliances and services. In fact, clothes-lines being the trouble they are, it might be said that "GLOGAS" deliverymen are downright enthusiastic about selling every customer on the virtues of a gas clothes dryer.

All the services mentioned above, however, are considered quite routine by Consolidated personnel, and they never forget that the company's objective is to furnish the highest degree of service possible at all times. The efforts of various men in the company to achieve this profitable goal has sometimes run to extremes.

For example, sometime back one of Consolidated's rural customers became so disgruntled at electric service on his farm that he ripped out every foot of wire on the place and demanded that gas lighting be installed. Not to be daunted, Consolidated men got quickly to work, located the one source of gas lighting equipment in the country and in a short time had their customer doubly sold on the service they offered.

At another time, John T. McKenzie, a director of the company and manager of the Montezuma Division, who is a licensed pilot, flew a hasty mission from Montezuma to Columbus, Ga., to get a special mill part needed in a hurry by one of his customers. The mill part concerned had nothing to do with LPG, but the service provided did. That particular customer will gratefully remember Consolidated's help for a long, long time.

Management in Consolidated Gas Co. deserves its fair share of credit for customer service, also, both routine and special. The attitude of the top echelon is that employes demand and deserve just as much service as customers if the customer is to be kept happy. Accordingly, management is careful to give their men good training and good equipment at all times. Trucks and other transportation are adequate and in good condition, so that calls for service can be answered quickly.

Keeping tools, techniques and transportation modern and in good order at all times takes money, to be sure, but it also makes money. Consolidated feels that after all, if service is the main product they are selling, then it's wise to keep a good stock of the product on hand.

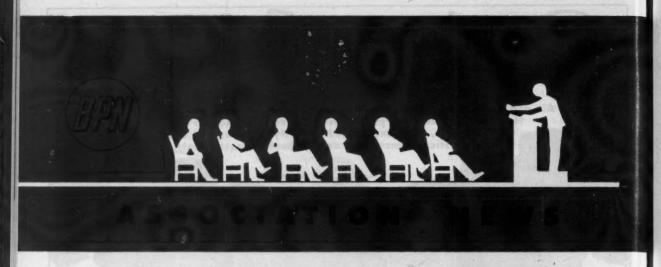


PEERLESS MANUFACTURING CORP., — LOUISVILLE 10,

65,000 B.T.U.

25,000 B. T. U.

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Kansas

At its business meeting following the annual meeting of the Kansas LP-Gas Assn. recently the following officers and directors were elected for the 1954-57 term: president, Clyde R. Cheatum, Coleman Gas Service, Wichita; vice president, Glenn McGuire, Union LP-Gas Systems, Iola; and secretary-treasurer, R. W. Dougherty, Mid-Continent Butane Equipment Co., Great Bend.

Directors are Dist. 1, A. C. Ferrell, Ferrell Butane Gas Co., Atchison; Dist. 2, Mr. McGuire; Dist. 3, Harold Stanton, Stanton Propane Service, Morrowville; Dist. 4, A. J. Burke, Farmers Butane Service, Hutchinson; Dist. 5, Mr. Dougherty; Dist. 6, G. M. Grimes, Grimes Appliance Co., Ashland; Dist. 7, Francis R. Jensen, Atkans Supply Co., Atwood; Dist. 8, W. B. Hettic, Hettic Gas Co. Inc., Meade. Director at large, Mr. Cheatum.

Michigan

The Michigan Liquefied Petroleum Gas Assn. will meet at the Pantlind hotel, Grand Rapids, Jan. 25-26, according to an announcement by J. O. Gower, secretary of the association. The two-day meet will feature a trade show and special guest speakers in addition to regular panel discussions.

Louisiana

About 100 dealers and suppliers attended the one and a half day annual mid-year meeting of the Butane-Propane Institute of Louisiana held in Baton Rouge, Nov. 13-14. Dealers were generally optimistic about the prospects for a larger sales volume this winter, following two mild years.

President J. C. Chenevert an-

nounced the appointment of the following to the legislative committee for the next year: Louis Abramson Jr., Petrolane Gas Co., New Orleans; Ivan W. Patterson, General Gas Corp., Baton Rouge; Frank J. Roberson, S. & R. Gas Co., Coushatta; Howard J. Cornay, Home Gas & Fuel Co., Lafayette; and Robert W. Anderson, Anderson Butane Service, Delhi.

The committee was charged with several new bills to come before it this spring which will aid the industry in maintaining gains made in recent years.

Chairman of Louisiana's regulatory body, William J. Fischer, commended the dealers for their fine cooperation which enabled the commission to function more efficiently. He also urged members to continue vigilance to attain greater safety of operations.

At the luncheon meeting, Wade O. Martin Jr., secretary of state, insurance commissioner and member of the L. P. gas commission, reminded the dealers of the importance of

maintaining a "live, wide-awake association" if they hope to weather some of the storms gathering and praised the Louisiana L. P. gas industry for its accomplishments in the past.

Plans for the big annual three-day convention in New Orleans in early summer are nearly complete and will be released shortly, Mr. Chenevert announced.

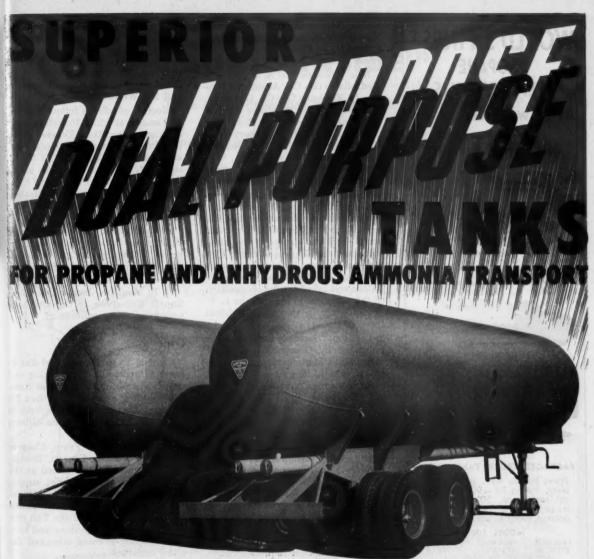
Minnesota

Members, 131 strong, registered for the Minnesota Petroleum Gas Assn. convention in Minneapolis, Nov. 2. Election of officers was held and the group was addressed by several industry leaders. The day was completed with a fellowship hour sponsored by the suppliers with Andy Tirpack, Weatherhead Co., as chairman.

New officers elected include president, Elmer Hansen, Pyrofax Gas Co., Minneapolis; vice president, Gil Bursinger, Northwestern Blaugas, St. Paul; secretary-treasurer, Charles



In attendance at the Louisiana meeting were, left to right: Wm. J. Fischer, chairman, Louisiana Liquefied Petroleum Gas Commission; J. C. Chenevert, president, Butane-Propane Institute of Louisiana; Wade O. Martin, Jr., Secretary of State and member of state commission; Keith E. Jones, director of state commission and Walter C. Bogan, treasurer of the Institute.



ROGERS CARTAGE OF CHICAGO RE-ORDERS FOR BIGGER PAYLOADS AND HIGHER PROFITS

Superior Tank and Construction Company is keeping abreast of the vigorous new Anhydrous Ammonia Industry with frameless tank units specifically designed for the transport of both this soil additive and Propane.

Rogers Cartage now has five of these new Superior rigs rolling, and the two shown above will make seven Superior profit-makers operating for this one progressive company

(SUPERIOR)

FAR BIGGER PAYLOAD THAN TWIN TANKS

Lightest possible weight under ICC and ASME requirements with frameless, integral construction, hemispherical heads, all seams X-rayed and entire tank stress relieved . . . 265 lbs. working pressure for Anhydrous Ammonia . . . 7130 gross gallonage . . . Propane Capacity—6203 net Gals. (4.23 lbs. per Gal.) . . . Anhydrous Ammonia Capacity — 5107 net Gals. (5.14 lbs. per Gal.)

Our engineering staff is at your service for consultation, preliminary plans and estimates.

SUPERIOR TANK AND
CONSTRUCTION COMPANY

6155 SO. EASTERN AVE. . LOS ANGELES 22, CALIF. . RAymond 3-1151

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PROPANE DELIVERY UNITS At New Lower Prices

Federal Tax Paid Easy Terms Available



New 1954 Chevrolet 2-ton, 2-speed axle, with 1400 W.G. twin propane tank, piped complete — \$3,845.00. With 1954 International L.P.G. factory equipped — \$4,255.00.



MODEL 200



MODEL 300

PACKAGED TRUCK TANK UNITS

Prices include tank, piped complete, Viking KK-190 mechanical seal pump, 50′ ¾″ filler hose, clearance lights, tank painted, ready to use.

MODEL 100 1400 W.G. 1600 W.G. 1800 W.G. \$1755.00 \$1845.00 \$1960.00 Add \$150.00 for Model 200 Add \$250.00 for Model 300

We can furnish any make or model NEW TRUCK, including Ford, Chevrolet, G.M.C., Dodge or International (factory LPG equipped), and save you up to \$600.00 on a new truck.

Any make or model pump or meter can be supplied.

New 1954 2-ton Chevrolet, 2apeed, 825×20, 10 ply rear tires — \$2150.00 —

Hose Reels — Fire Extinguishers LPG Carburetion

SEVERAL GOOD USED PROPANE TRUCKS FOR SALE

IMMEDIATE DELIVERY



Call
phones 570 or 686
Preston W. Grace

WHITE RIVER
DISTRIBUTORS, INC.
Batesville, Arkansas

Bubar, Northwest Hydro-Gas Co., New Brighton; second vice president, Robert Hyde, Hypane Gas Co., Pipestone, Minn.

New directors are A. C. Steinke, Hydroflame Gas Co., Austin; Ed Kopplin Jr., Economy Gas Co., Litchfield; Emmett Nystrom, Shellane Service, Worthington; and Larry Dow, Dupane Gas Co., Duluth. Robert Zuppke, Natrogas Inc., Minneapolis, and Art Peterson, Utility Gas Co., Gaylord, were approved to fill unexpired terms on the board.

Speakers included Frank Carpenter, who highlighted Minnesota law requirements for consumer bulk systems; John Knox Smith, who pointed out the still weak spots in the safety picture; and Minnesota State Fire Marshal Leonard Lund, who reminded the group of state laws and regulations and asked for the cooperation of the members in making the L. P. gas industry in that state accident free.

The film, "Servants On Tap," was presented by George Meeham of John Wood Manufacturing Co.; David Crockett, Minnesota Mining & Manufacturing Co., spoke on successful selling; and John E. Kelderhouse pointed out vulnerable spots in the industry at the marketer's level.

Retiring president of the association, Steve Fligelman, received a public commendation from the members for his work in promoting the association's growth during his two years in office.

Mississippi

At its annual meeting in November, the Mississippi Liquefied Petroleum Gas Dealers Assn. elected H. H. Whitworth, Oxford, president to suc-

ceed Dewey S. Dearman, Hattiesburg. New vice presidents are Arthur L. Hickman, New Albany; Jack Grundfest, Gary; and John Grice, Picayune. They succeed Earl Hanna, Jackson; Wallace Hope, Picayune; and Mr. Whitworth.

Election of officers followed a general session at which President Dearman introduced D. C. Trexler, director of the department of conferences and institutes, University of Mississippi. Mr. Trexler spoke on a proposed "Management Seminar." Committee reports were made by Herbert Rogers of New Albany and Earl Hanna of Jackson.

At the luncheon meeting, Richard J. Dorman, Jackson, addressed the group. He is director of the Liquefied Gas Division of the Mississippi Motor Vehicle Comptroller's office.

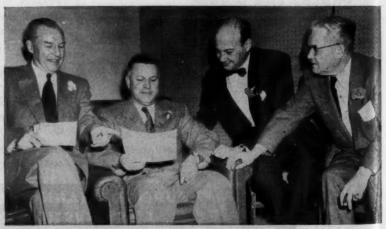
R. R. Moulden, Jackson, Moulden Supply Co., spoke to the afternoon session on meter calibration.

Ohio

Ohio L. P. gasmen turned out in force to make the fall meeting and trade show of the Ohio LP-Gas Assn. the largest on record. More than 250 attended the annual session held in Cincinnati at the Sheraton-Gibson hotel, Nov. 8-10.

President Forrest Fram, Chagrin Falls, and William Everett, Bridgeport, vice president, presided at the business sessions. A buffet supper opened the social program, which included a trip to Cincinnati's famed Rockwood Pottery and the Taft museum. A stellar floor show and banquet Monday evening climaxed the social activities.

Delegates had two full mornings to see the trade show and exhibits. The



State laws and regulations were discussed by Leonard Lund, Minnesota State Fire Marshal, Elmer Hansen, president elect, Steve Fligelman, retiring president, and Larry Dow at the recent Minnesota LPGA meeting.

"THERE'S A BONUS INSIDE!"

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important extras. INTEGRITY, REPUTATION, RESPONSIBILITY,
PERFORMANCE, and GOOD SERVICE.

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ANHYDROUS AMMONIA SYSTEMS



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speakers' program was under the direction of John S. Bolan, Rural Natural Gas Co. The first day's program included talks by Charles Scott, the state fire marshal; Mrs. Anne M. Clemmons, assistant professor, home economics, University of Kentucky; M. L. Trotter, LPGA president; and



Seated at speakers' table are Lee Brand, vice president, Empire Stove Co., Mrs. Forest Fram and Forest Fram, president of Ohio LPGA.

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Julius Klein, president of Caloric Stove Corp., Philadelphia.

"How much larger the L. P. gas load will grow in Ohio depends on three factors," Mr. Klein told the delegates. "Your ability to increase your capitalization through reinvestment or profits, financing through your banks and loan companies and floor planning of appliances that you sell . . . your ability to bring and promote the benefits of L. P. gas to more rural and small town customers . . . your ability to meet the challenge of electric competition."

"How Modern Can You Be?" a symposium of talks, demonstrations, and skits under the direction of Lee Brand, vice president, Empire Stove Co., informed and entertained the delegates on the second afternoon, pointing out the features of modern L. P. gas appliances.

Royce Hoyle Jr., American Gas Assn., recounted the growth of the gas industry. M. W. Batchelder, Caloric Stove Corp., gave a factual demonstration on the economy and advantages of gas cookery.

F. A. McFerran, Ruud Manufacturing Co., directed a skit that revealed basic sales information on gas water heaters. He was followed by Cecil B. Oakley, Temco Inc., who told "Why Gas Clothes Dryers Are Better."

Clarence Speigel, Servel, briefed the audience on the new "Gas Ice Maker" refrigerator; and James Crawford, Affiliated Gas Inc., covered the "economy, convenience and comfort of gas heat." M. A. Ennis. employe training director, National Committee for LP-Gas Promotion, wound up the program with an hourlong cooking demonstration for delegates and home demonstration agents.

LPGA Directors Meet

Plans for the establishment of a Market Research and Statistical Department of the Liquefied Petroleum Gas Association were given the green light by the board of directors at a recent meeting in Charleston, S. C. The recommendation that a statisti-



Allen Barnhardt, division manager, Cribben-Sexton Co., graphically demonstrated the portability and flexibility of L. P. gas on a leading television show in Cincinnati during the recent Ohio convention.

COLOR HARMONY

decorator models



LITTLE GIANT Dove Gray & Coral . 3 Sixes



HI-CAPACITY Ivory & Brown



WRITE FOR CATALOG 53 See Complete Line. Get Dealer Plan.

THE OHIO FOUNDRY & MANUFACTURING CO.

"Quality Heating Equipment Since 1846" STEUBENVILLE, OHIO activity was made by the Market Research Committee, headed by A. F. Smith, A. O. Smith Corp., Milwaukee, Wis.

Eighty-six applications for membership in the association were accepted at the session and A. E. Bone, Eastern Propane Co., Malvern, Pa., chairman of the membership committee, obtained approval for an intensive campaign for additional members.

President M. L. Trotter, Carolina Butane Gas Co., Columbia, S. C., who presided at the meeting, told the board he had traveled approximately 27,000 miles since assuming office to make talks before various state and district LPG groups.

A. H. Menuet, Skelly Oil Co., Kansas City, Mo., chairman of the technical and standards committee, submitted and obtained approval on several proposed revisions in Pamphlet 58 of the National Fire Protection Association, "Standards for the Storage and Handling of Liquefied Petroleum Gas." His major recommendations were that a new section covering standards for L. P. gas automotive service stations be included in the booklet, that Division 6 on cylin der systems for cooking and heating

installations on highway vehicles be revised to cover commercial cargo equipment and that standards for portable engines in buildings be incorporated in Division 4 on motor fuel uses of LPG. The suggested revisions will now be submitted to the NFPA Committee on Gases.

Upon recommendation of Harry Thomas, Stanolind Oil and Gas Co., Tulsa, Okla., chairman of the Legislative Committee, the board gave its approval to minor changes in LPGA's model state law and model city ordinance. It was decided to include in these documents references to NFPA Pamphlet 52, "LP-Gas Piping and Appliance Installations in Buildings."

Howard D. White, executive vice president, reported on a recent Washington conference with representatives of the Mass Feeding Section. Civil Defense Administration. At this session, he and a special committee consisting of Peter A. Anderson, Cargo-Guard Co., Portland, Maine; C. J. McAllister, The Parlett Gas Co., Waldorf, Md., and H. Emerson Thomas, H. Emerson Thomas & Associates, Westfield, N. J., discussed the roles the L. P. gas industry could play in defense emergencies.

Asserting that funds now in hand for scholarships in the Gas Fuel Technology course at Southern Technical Institute, Chamblee, Ga., are sufficient only to provide for students now attending the institution, Frances Holliday, Cumberland Natural Gas Service, Burnside, Ky., chairman of the Gas Fuel Technology Foundation Committee, urged more industry companies to contribute to the cause. Several district and state LPGA groups have already agreed to cooperate with the proposal made at the September board meeting that they earmark \$1 from each convention registration for the scholarship fund, she said.

A report read for Lee A. Brand, Belleville, Ill., chairman of the National Committee for LP-Gas Promotion, who was unable to attend the meeting because of another commitment, revealed that nearly 225 contributors to the industry's promotional program had been added in the past year. He asked board members to urge companies not yet participating in the project-to join now in order to be included in a revised honor roll soon to be issued.

Wisconsin Elects Runde

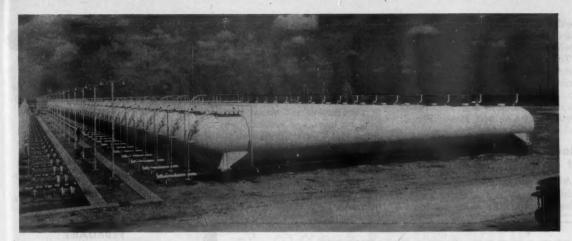
O. H. Runde, former secretarytreasurer of the Wisconsin LPGA, Sparta, was elected president of the association at the annual meeting recently held at the Medford hotel in Milwaukee. Other new officers are:





When you buy LP-Gas from Carter, you have the assurance of high quality and dependable service. Years of experience in producing and marketing LPG make Carter an unexcelled supplier.

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This purchase of battery of large large storage tanks by billion-dollar oil and refining company is proof that McNamar can supply any size LPG tank you want.

Whether it's a 115 gallon domestic system or a 6000 to 30,000 gallon storage tank, McNamar can always meet your requirements . . . for size . . . quality of workmanship . . . speed of delivery.

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 Should Be
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- 1. McNamar's are UL approved Tanks.
- 2. They meet all requirements of all states.
- McNamar's are built under the new ASME code.
- They also meet all requirements of the old ASME U-69 code.
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Now! McNamar stands on its record of performance. When you buy McNamar, you've bought the best tank money can buy.



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George Bortner, vice president, Chicago; Miles Barker, secretary-treasurer, Wisconsin Rapids.

The meeting featured a number of outstanding speakers, including Lee Brand, vice president, Empire Stove Co.; Jack Mikula, sales manager. Milwaukee Gas Co.; George McClellan, Metalbestos Co.; and Mayor Frank Zeiller of Milwaukee.

Management Conference At University of Missouri

A Management Conference will be held Jan. 18-20 at the University of Missouri, Columbia. sponsored jointly by the Missouri LPGA and the University of Missouri.

According to D. M. Orcutt, secretary of the Missouri LPGA, enrollment for the conference is being limited to 45. The three-day meeting will cover a variety of subjects pertinent to management and operation of an LPG business, and speakers will include Mel Trotter, president of the national LPGA; John Guardiola, advertising manager, Weatherhead Co.; Henry Wieckman, regional manager, Skelgas Division, Skelly Oil Co.; and E. C. Kottmeier, Fidelity & Casualty Insurance Co.



All associations are invited to send in dates of their forthcoming meetings for this calendar.

1954

JANUARY

Jan. 10-11--Arkansas Butane Dealers Association. Midyear meeting.

Jan. 25-26—Michigan LPGA winter meeting, Pantlind Hotel, Grand Rapids.

FEBRUARY

Feb. 15-16-Indiana LPGA. Annual convention and trade show. Clay-pool Hotel, Indianapolis.

Feb. 21-22-lowa LPG Service School, University of Iowa, Ames, Iowa.

Feb. 26-NGAA Permian Basin Regional Meeting, Lincoln Hotel, Odessa, Tex.

MARCH

March 15--Southeastern Gas Association Short Course in Gas Technology. North Carolina State College, Raleigh, N. C.

Mar. 15-17 - Midwest Gas Association. Annual meeting. Fort Des Moines Hotel, Des Moines, Iowa.

Mar. 22-24-LPGA Southeastern District. Annual convention. Atlanta-Biltmore Hotel, Atlanta, Ga.

APRIL

April 5-7-Nebraska Liquefied Petroleum Gas Dealers Association. An-nual convention and trade show. Fontenelle Hotel, Omaha.

April 9-10—Western Liquid Gas Association of California. Annual meeting, Palace hotel, San Fran-

April 12-13-Montana LPGA. Annual convention, Hotel Florence, Missoula.

-National Petroleum As-April 14-16sociation. Semi-annual meeting. Cleveland Hotel, Cleveland, Ohio.

April 21-23—NGAA 33rd Annual Convention, Baker Hotel, Dallas,

April 24—Western Liquid Gas Asso-ciation. Annual meeting, Palace Hotel, San Francisco, Calif.

April 25-27—Mississippi LPGA. Annual Convention. Edgewater Gulf Hotel, Edgewater Park.

April 26-28—Midwest Regional Gas Sales Conference. Edgewater Beach Hotel, Chicago, III.

MAY

May 9-12—LPGA annual convention and trade show. Conrad Hilton hotel, Chicago.

May 19-21—Gas Appliance Manufacturers Association. Annual meeting. Drake Hotel, Chicago.

May 24-25 — Utah LPGA. Annual convention, Hotel Newhouse, Salt Lake City.

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Go Bagwell - General!

Engineer designed, built to specifications and field tested, you can depend upon Bagwell-General Truck or Domestic Storage Tanks.

* ASME U69 to meet all Federal and State Requirements, our tanks are U/L. Approved.



1250 to 1450 W.G. Full Streamlined

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Performance that only 75 Years Experience could Produce

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The new HARDWICK 75 sets new standards of safety and performance. Every burner lights automatically . . . yet no gas can escape from any burner or pilot, even if the pilot is out and burner is left "on" for hours or days. Super EconoMatic automatically cuts off the gas supply to top burners or oven and pilot, when the pilot is extinguished for any reason. In addition to outstanding safety, Super EconoMatic offers many other exclusive features to attract attention of customers everywhere. attention of customers everywhere.

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HARDWICK Automatic Gas Ranges .

HARDWICK STOVE COMPANY, CLEVELAND, TENN.



REGO LP GAS EQUIPMENT

- Rochester Criterion
 Gauges
- Hose and Fittings
- Weco-Trol
 (Automatic control)
- ICC Cylinders
- Okadee Valves



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Serving the Gas Industries For Over 40 Years.

Products and Trade Publications

To secure further information on products or new publications, fill out the coupon and mail, indicating by number the items desired.

1. Midget Solenoid Valve

Midget solenoid valves, no larger than two packs of cigarettes (regular size), have just been developed by General Controls Co.

This new series of magnetic stop valves is designed for use with all types of gases and fluids. The valves operate in any position and feature positive shut off, low current consumption, optional time-delay, and adjustable by-pass and main flow.

One of the miniature valves, the K-27, is especially suited for such an application as that found in a vending machine. Another new type, the K-28, is designed specifically for use in domestic oil burners. A built-in, timedelay action prevents immediate opening of the valve until the oil burner motor gains full running speed. This assures proper fuel-air ratio and normal combustion. When the motor circuit breaks, the valve closes instantly to prevent oil dribble. These factors reduce smoky starts. lessen accumulation of carbon on the nozzle and electrode, and help eliminate start-stop oil odors.

The final stop valve in this midget series is the K-29, for use in both domestic and commercial oil burner installations. It is of the manual reset type and dependable safety is featured in the valve. The K-29 fails safe on current failure or unsatisfactory voltage conditions, and must be manually reset after the trouble is corrected.

General Controls Co.

2. Low Pressure Fitting

A new addition to the "Emsco" ball bearing swivel fitting line has been announced, which is specially designed for applications and pressures to which schedule 40 pipe would be subjected. The Type LPR "Emsco"



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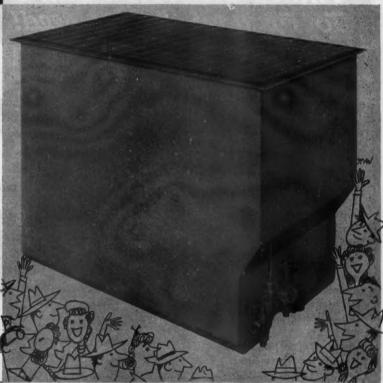
JUMP INTO THE PROFIT ROW

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With the great new 1954 line of TEMCO Automatic Gas Floor Furnaces . . . with the king-sized 1954 TEMCO advertising and sales promotion plan to back you up . . . you can make a clean sweep of the floor furnace business in your area. TEMCO sales features like these make it easy to get the jump on your competition:

- TEMCO's famous porcelain enamel heat chamber carries a 20-year warranty.
- Shallow construction (just 251/2" overall) means easier, less expensive installation.
- TEMCO Gas Floor Furnaces are specifically engineered and AGA approved for use with all gases.
- Built by America's Gas Heat Specialist, TEMCO Gas Floor Furnaces are priced low enough to bring automatic heat within the reach of every home owner.

For the full story of the profit potential in TEMCO Gas Floor Furnaces, see your TEMCO distributor, or fill out the coupon



THE TEMCO GAS WALL HEATER

ideal for upstairs rooms and slab foundations. Fits between standard



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BUILDER OF OVER 11/2 MILLION GAS APPLIANCES



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Send catalogue and full information about TEMCO Gas Floor Furnaces.

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fitting illustrated above is designed for a maximum pressure of 1000 psi at a maximum temperature of 225° F. Other types are available for pressures up to 15,000 psi and temperatures to 750° F.

Like all "Emsco" ball bearing swivel fittings, the outstanding feature of the Type LPR is its unusual free turning qualities. It is far superior to anything on the market from the standpoint of easy turning at low torque, low resistance to flow and all around safety. The thrust

load is taken directly through the center of the balls.

Emsco offers over 500 various types, styles and pipe sizes ranging from 11/4 in. to 4 in. End connections may be scarfed, bored for welding, threaded or flanged.

Emsco Manufacturing Co.

3. Gas Meter

A new lightweight die-cast aluminum gas meter with a rated capacity of 415 cubic feet per hour has been announced by Rockwell Manufacturing Co.

Similar in body and cover design to two other aluminum meters previously introduced by the companymeters with capacities of 150 and 800 cubic feet, respectively - the new "415" weighs only 20 pounds as compared with Rockwell's cast iron meters of comparable capacity, which weigh 62 pounds.

Like the "150" and the "800," the new meter has a single sealing flange between cover and body, and its valve plate is completely enclosed within the case. It also features oilimpregnated powdered metal bear-

Standing 1434 ins. in height by 111/8 ins. in width and 93% in depth. the "415" has 7-in. spud centers, roll type diaphrams and four chamber design "D" slide valves with duplex tangent adjustment.

Chief advantage claimed for the new meter-as for all other Rockwell aluminum meters-is saving in shipping costs and increased ease in handling and installation owing to the reduced weight. Increased resistance to atmospheric corrosion is also cited as an advantage.

Although a "brother" to the "150" and "800," the "415" incorporates several entirely new design features.

Rockwell Manufacturing Co.

4. Valve and Gauge Adaptor

Break-off accidents and injuries to valves and rotary gauges used on LPG transport tanks are now virtually eliminated by a new forged steel recess valve and rotary gauge adapter being produced in quantity by the S and L Manufacturing Co.

Simple in design and construction,

VIKING L-P GAS PUMPS To Fit Your Every Meed!

SIZES-

5 - 10 - 30 -55 - 75 GPM sizes in power driven units.

TYPES-

Bulk Plant Loading and Unloading Pumps. Truck Delivery Pumps. Bottling Pumps. Tractor, Truck and Car Fueling Pumps.

FEATURES-

All power driven models mechanical seal equipped. Nonlubricated internal bearing. Safety valve on pump head. Standard or bronze fitted construction. Integral thrust bearing. Revolvable casing for handy port location.





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Original "gear within a

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One of the world's great hotels!

FAMOUS NAMES IN COMMERCIAL COOKING FROM COAST TO COAST DEPEND ON GARLAND!

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the S and L Recess Valve and Rotary Gauge Adapter not only gives ample protection but it is also easy to install. Tank fabricators need only to weld the adapter to the pipe being used and then weld the complete unit into the transport tank.

Forged from SAE 1020 mild steel, the S & L adapter saves tank fabricators as much as 80 percent in labor and material costs. By using the adapter, transport tank fabricators can eliminate present labor and material consuming methods to obtain the same type of protection for valves and rotary gauges. The adapter does away with the need to cut a hole into steel plate, then inserting a coupling, and then welding the coupling into the outlet hole. This

procedure has usually been followed by welding the pipe being used onto the steel plate which in turn has required two welds before the fabricator can weld the unit into the tank shell.

The new S and L Recess Valve and Rotary Gauge Adapter conforms to the National Board of Fire Underwriters Pamphlet No. 58. It is being produced in the following sizes: O.D. 4 inch with NPT inside pipe diameters of ¾ inch, 1 inch and 1¼ inch. It can also be had in 6 and 8 inch outside diameters with ¾ inch, 1 inch, 1¼ inch, 1¾ inch and 2 inch NPT inside pipe diameters.

Those interested in securing more information are requested to write for the new S and L catalog and price sheets.

S & L Manufacturing Co.

5. Suppressor Assembly

A suppressor assembly designed to cut down pulsations of regulators with long vent lines has just been



brought out by The Bastian-Blessing Co. Where the low pressure regulator is installed inside a building, the vent opening must be piped to the outside, usually by copper tubing. The long length of this tubing often creates enough "impendence" to start a pulsation in the gas flame. By arresting any tendency toward pulsation on the part of the regulator, the No. 1493 gives a steady delivery pressure.

The assembly fits over the exposed tubing end, its protective skirt preventing ice or sleet from forming and



our CAN DO policy brings you a new and safer

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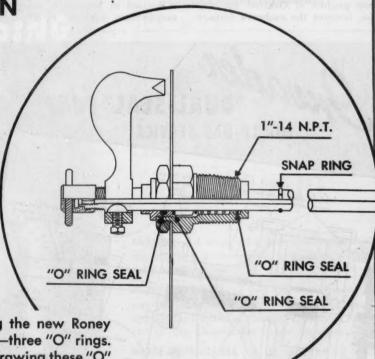
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TRIPLE PROTECTION



NOW—instead of one packing the new Roney Rotary Gauge has a triple seal—three "O" rings. As indicated in the engineer's drawing these "O" rings are so placed that with the failure of any one, either or both of the remaining two are positive seals against leakage. The gauge also incorporates a snap ring recessed in the stem, which facilitates the changing of the two upper "O" rings without emptying the contents of the tank. We are proud to present this new foolproof, leak-proof, smoothly operating Rotary Gauge. Write, phone or wire for detailed information.

No. 320



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EQUIPMENT AVAILABLE FOR IMMEDIATE SHIPMENT

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JANUARY, 1954

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sealing off the tube end. The inlet will take \%-in. or \1/2-in. O.D. tube.

A bug screen is incorporated in the assembly to exclude insects.

Use of a hose clamp is recommended in attaching the assembly to the tubing, to prevent its being removed by children or others unfamiliar with its purpose.

Bastian-Blessing Co.

6. Circulator

The deluxe radiant circulator, a new product of Oakland Foundry Co., features the exclusive furnace type radiator combustion chambers which provide quicker heat, faster circulation, warm floors instead of ceilings and less heat loss up the chimney, thereby resulting in a definite saving in operation.

Standard equipment includes pressure regulators and blue flame pilot burners with capacities of 50, 65 and 80,000 Btu. Heaters are equipped with automatic circulating fans and a choice of automatic controls. Built-in room thermostat gives automatic temperature control.

Encased in beautifully designed, easy-to-clean cabinets in life-time



porcelain finish, the heaters are available in blended tones to harmonize with furnishings.

Oakland Foundry Co.

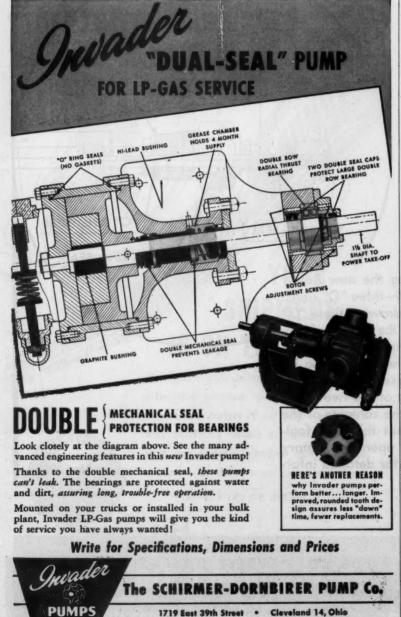
7. Trouble Lamp

Similar to a powerful flashlight's beam, this lightweight, explosion-proof trouble lamp's concentrated beam of light assists maintenance work at hazardous locations, where explosive gases or vapors are in the air. Designed and manufactured by Crouse-Hinds Co. the new type EPLH lamp is especially practical for inspecting the interior areas of oil and gasoline drums or process vessels and tanks, as well as for illuminating inacessible gages.

The new product consists of a cast aluminum cylindrical-shaped lamp chamber, concentrating lens, composition handle, support hook and explosion-proof cord connector with mechanical cord grip.

If one or more explosions take place in the lamp compartment, caused by an arc in the lamp socket, flame-tight threaded joints located around the lens housing and along









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FASTER... A short, quick downward motion of the puncture lever pressurizes the extinguisher and it is ready for instant use.

MORE EFFECTIVE . . . Even the inexperienced operator gets near-expert results because of the ease of operation and handling. In addition ANSUL "PLUS-FIFTY" Dry Chemical has greater fire-killing power.

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Send for File No. B-201. You will receive a variety of helpful printed matter. Included is our latest catalog which describes Ansul Extinguishers of all sizes—from the small Ansul Model 4 to Ansul Piped Systems and Ansul 2000 lb. Stationary Units.

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CITIES IN THE U. S. A., CANADA AND OTHER COUNTRIES

MANUFACTURERS OF
DRY CHEMICAL FIRE EXTINGUISHING EQUIPMENT, REFRIGERATION
PRODUCTS, INDUSTRIAL AND FINE CHEMICALS AND LIQUEFIED GASES

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top and bottom sections of the lamp compartment, confine explosion flames to an area within the lamp compartment. This compartment, moreover, is strong enough to withstand well over four times the amount of pressure to build up in it from such explosions.

A strong beam of light-concentrated by the lens-is supplied by a 12-volt auto lamp.

An essential accessory for supplying current is an explosion-proof 120/12 volt transformer.

Crouse-Hinds Co.

8. Fire Retardant Paint

The recent development of a fire retardant paint that is easily applied by brush or spray and actually stops fire from spreading has been announced by The Fyr-Kote Co. Particularly for use in compressor stations, pumping houses, etc., this new product is claimed to be one of the greatest advancements yet made to prevent small fires from becoming disastrous.

Every drop of this paint is said to contain a mass of minute "built in"

fire extinguishers; when exposed to flame Fyr-Kote pours out carbon dioxide and calcium chloride which smothers fire and retards the spread of flame right on the surface.

Fyr-Kote oil base fire retardant interior flat wall paint has been listed by Underwriters Laboratories and is identified with the Underwriters' label on every can. It also passes applicable federal specifications and U. S. engineers' tests.

a s c e e c r

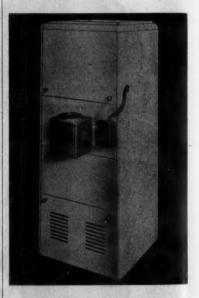
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Fyr-Kote, an extremely washable flat wall paint, withstanding more than 25 cycle of scrubbing with strong washing powder and boiling water, is easy to apply, economical, solid covering and long lasting. Full information, data, tests, etc., including Underwriters' Laboratories classification may be obtained from the

Fyr-Kote Co. - Division of Morris Paint and Varnish Co.

9. Gas Fired Furnace

A new gas-fired winter-air conditioning counterflow furnace has been added to Perfection Stove Co.'s line. Called the Model G-811-V, it is



equipped with Perfection's own Regulaire blower, which automatically regulates itself to circulate heat in relation to the amount of heat there is in the furnace.

The Regulaire blower has the advantage of eliminating hot and cold blasts of air, resulting in an even flow of heat through the dwelling.

The Model G-811-V has a rated input of 95,000 Btu's per hour. Specially designed for modern basementless homes, it installs neatly in an alcove, closet or utility room. Although cap-



Every home a prospect

for this fast-selling major appliance



A new incinerator – garbage and rubbish disposal

A fast-selling appliance that opens brand new market for appliance dealers. Prospects everywhere, ready and waiting for this newest of home conveniences.

One owner sells another. Customer satisfaction from this efficient, most scientific of all gas fired waste disposal units hits a new high in the appliance field.

Handles ALL garbage and rubbish (except glass and metal). No electricity - no water - no complicated installation-no rotors, gears or anything to get out of order or require repair service.

for BIG, QUICK appliance profits, sell CORONATOR!

There are a few choice territories available to distributors. Write, wire or phone for details.

5 reasons why CORONATOR is the outstanding buy:

1. Access door cannot warp or jam to cause service difficulties

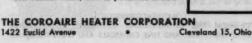
2. Inner compartment made of 12-gauge steel for extra long life—heat, rust and corrosion resistant.

3. 100% safe-complete combustion within the cabinet.

4. Completely automatic. No dials to turn or valves to manipulate.

5. A steel product, built by a steel company whose reputation is known and respected throughout

the world.



able of delivering plenty of housewarming heat, it is designed to occupy a minimum of floor space.

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The burner is constructed of durable cast iron, of the single port, upshot type, precision built for ultraquiet operation, long life and high efficiency. There's a 10-year written guarantee on burner, radiator and combustion chamber. Automatic foolproof safety controls are neatly concealed in the furnace cabinet, yet are readily accessible.

The gas burner can quickly and easily be interchanged with a Perfection Oil Burner, specifically designed for this furnace. The result is not a converted furnace but an Underwriters' listed oil furnace with the same dependable, automatic performance.

Finished in gleaming white enamel, the G-811-V will match perfectly with other household appliances, when installed in a utility room or elsewhere, with other modern home equipment. Perfection Stove Co.

Product Information

10. Catalog Supplement

Selwyn-Landers Co. has issued a catalog supplement on their line of motor fuel tank fittings. The booklet, complete with specifications, cutaway sketches and technical information, includes relief valves, filler valves, vapor return valves, service valves, liquid level gauge, rotary gauge and hose couplings and service parts.

Selwyn-Landers Co.

11. American Meter Booklets

"Guide To L. P. Gas Metered Service" is the title of a new, highly informative, pocket-sized booklet now offered free in limited quantities to the trade by American Meter Co.

Twenty pages in length and attractively illustrated in color, the American booklet is jam-packed with facts on the use of displacement meters for accurately measuring L. P. gas vapor in home, commercial and industrial service installations. Convenient tables provide useful information such as what size meter to use for certain loads or what size pipe to use.

The booklet also shows how an LPG business can be set up for a smoothly run, more efficient operation with savings in manpower, trucking and other operating costs—and how meters can help smooth out the valleys and humps caused by low and



high demand periods. The way meters can be of value in building customer relations is also pointed out. Booklets may be obtained by writing to your nearest American Meter Co. representative.

American Meter Co. has also produced an attractive colorful circular to help distributors sell new prospects on the advantages of L. P. gas and which can be imprinted at cost with the distributor's name on the front cover

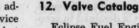
"City Type Gas Service For You!"

can products.

American Meter Co.

is the title, and the outstanding advantages of economical LPG service tion are stressed with simple eveexplained in easily understood terms. Uniquely, the circular promotes only the conveniences of L. P. gas with no emphasis on meters or other Ameri-

to the home owner for automatic hot water, home heating, cooking, automatic clothes drving and refrigeracatching illustrations. What L. P. gas is-and how it is delivered-are also



Eclipse Fuel Engineering Co. has recently published a new calatog covering their line of "DO" solenoid valves. The catalog includes sketches. diagrams and complete specifications.

Eclipse Fuel Eng. Co.

13. Price List

A new price list on their propane truck tanks has been released by White River Distributors, Inc. The booklet, including photographs and specifications, covers the 600 to 2400 gallon single or twin barrel tanks.

White River Distributors, Inc.

California LPG Society Changes Name

Change of name from "Society for the Advancement of the California L/P Gas Industry, Inc." to "L/P Gas Safety Society, Inc." was unanimously voted by the board of directors at their meeting in Fresno Nov. 13.

Reason for the change of name is to permit extension to qualified distributors and dealers in other states of the preferential rate structure recently accorded to Society members through the London insurance market. (See article on page 62).

Cotton Loom Safeguards LPG Installations

LPG dealers now are able to obtain the finest cotton loom for insulation covering of copper tubing and at very reasonable prices, according to Dix Manufacturing Co., Los Angeles, manufacturers of the Dix Butane Propane Carburetion units, who report that they have just purchased an entire carload of % inch inside dimension cotton loom which is just the right size to cover 3/8 inch outside dimension copper tubing.

The company states, "Every automobile, truck, tractor and every other mobile installation of L. P. gas power requires this cotton loom insulation for covering copper tubing between fuel tank and regulator, as cotton loom is the most effective safeguard against vibration, wear, friction, electrical shorts as well as mechanical damages."

It is also pointed out that the average passenger car or truck LPG installation requires from 10 to 20 feet of cotton loom insulation, and the average tractor installation should have between 3 and 4 feet of tubing insulation.



Safe, sure ventilation no matter which way the wind blows . . . The Breidert represents a revolutionary, aerodynamically-correct principle in design that makes it especially suitable for venting gas heaters and other appliances. Properly installed, the Breidert cannot back-draft where there is no interior negative pressure! In recent exhaustive tests by the U.S. Government, Breidert Air-X-Hausters out performed all other types of ventilators tested.

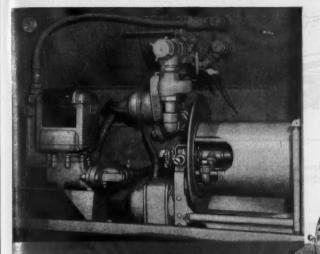
Reduces service to a minimum . . . The Breidert is stationary, has no moving parts to jam or get out of order. Instead of exhausting soot and fumes downward as most conventional ventilators do, the Breidert vents to the sides. Thus, the flue stack and roof remain cleaner, and without discoloration.

A few words about cheaper caps... You may buy lower cost vent caps than Breiderts, but the necessity for special service work to make them operate properly may cost you \$10 to \$25 additional.

First with certified directional wind capacity ratings . . Breidert ventilator offers certified capacity ratings based on tests made with wind blowing at all angles (as shown). These high capacities were proved and certified by Smith Emery Co., Pacific Coast branch of Pittsburgh Testing Laboratories. Insist on certified ratings based on directional wind tests at various vertical angles as shown in considering any ventilator.

Send for literature and Installation Guide. No charge or obligation.

G. C. BREIDERT CO. Dopt. BP. 3129 SAN FERNANDO ROAD, LOS ANGELES 65, CALIF. REPRESENTATIVES IN PRINCIPAL CITIES OF THE U. S.



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Illustrated is Butler L. P. Gas Truck Tank built for General Natural Gas Corp. of New York, and equipped with Hannay Hose Reel with Explosion-proof Electric Motor. Modern installations such as this are streamlining deliveries for LPG distributors everywhere.

HANNAY HOSE REELS

HOSE REELS Proved and Approved by Leading LPG Distributors for Safe, Speedy, Superior Service

SUNGAS SERVICE

MALE COMPANY AND

These Features of the HANNAY HOSE REEL with Explosion-Proof Motor Speed Up Deliveries, Cut Costs

- Sturdy construction and simple operation reduce maintenance costs.
- Explosion-proof switch with easy push button control.
- Especially designed explosion-proof heavy duty motor, Underwriters approved.
- No gears to shift; no clutch to engage.
- Safe rewind speed, always under control.
- Rolled edges on disc, smooth spool...
 no scuffing, no damage to hose.
- Ball bearing Chiksan swing joint . . .
 does not carry weight of reel.

All over the nation, under all sorts of weather conditions, Hannay Hose Reels are helping LPG distributors make faster, more economical, safer deliveries. They reduce time at every stop, extend the life of expensive hose, eliminate mess and annoyance, keep delivery men happy.

The Hannay Hose Reel Model EPB with Explosion-proof Electric Motor and simple push button control is the most efficient reel made . . . the most completely satisfactory reel your money can buy. Manually operated models are also available. Ask your equipment jobber or write us for full information.

HANNAY First Name in HOSE REELS

Power and Manually Operated Hose Reels for Every Purpose HOSE REELS C CLIFFORD B. HANNAY & SON, INC. WESTERLO, NEW YORK

@ 1953, C.B.H. & S., Inc.

Anchor Petroleum Co.

George W. Epley, formerly with Anchor Petroleum Co.'s Omaha, Neb., office, has been named manager of Anchor's expanded Des Moines office, it was announced this week by W. A. (Bill) Baden, Anchor president. The appointment became effective Nov. 1.

Mr. Epley will be responsible for all Anchor products, including LPG. He will be assisted by Miss Neva Oliver, who for the past 10 years has been with Anchor's home office in Tulsa.



The new offices are located at 321 Insurance Exchange Bldg. in Des Moines.

Weatherhead Co.





The promotion of Robert A. (Bob) Miller to the position of sales manager of the anhydrous ammonia equipment department of The Weatherhead Co., Cleveland, is announced by T. V. Scott, sales manager,

LPG Equipment Division. Mr. Miller assumed his new duties on Nov. 1.

Since joining The Weatherhead Co. in 1949, Mr. Miller has been engaged in sales work with the LPG equipment division. However, the expansion of Weatherhead's line of anhydrous ammonia equipment and Mr. Miller's activity in that direction during the past two years have lead to his new appointment.

A Consumer Advertising Campaign with an Audience of 75 Million

unit heater prospects prefer REZNOR

Thirteen times during 1954, LIFE will carry the story of Reznor unit heaters. Before the year is over, 73,050,000 adults will have seen one or more of the issues carrying a Reznor ad. That's 61.1% of all the people in the United States over 10 years of age. Reznor schedules in SMALL HOMES GUIDE, HOME MODERNIZING, NATION'S BUSINESS, NEW EQUIPMENT DIGEST, and INDUSTRIAL EQUIPMENT NEWS add another two million to the audience of this powerful campaign to help you sell

Reznor unit heaters.

Reznor is the preferred unit heater among your prospects because Reznor is the one name they know. Reznor has consistently outdistanced the field in unit heater promotion. The 1954 program is new evidence of Reznor's determination to maintain the leadership which has made Reznor the world's largest-selling gas unit heater.

For the details on how you can cash in on this great promotional program, write to the Reznor Manufacturing Company, 4 Union Street, Mercer, Pa.

Rockwell Manufacturing Co.

Two new product managers have been appointed by the meter and valve division of Rockwell Manufacturing Co., according to L. A. Dixon, Jr., vice president.

Orville W. Barnétt, former manager of Nordstrom Valve distributor sales, is now Nordstrom valve products manager; and George A. Cunningham, former assistant gas products manager, has been named gas products manager.

The two men jointly succeed Gilbert T. Bowman, former Nordstrom valve and gas products sales manager, who has been elevated to the newly created post of manager, products department, supervising activities of all product managers in the Meter and Valve Division.

Tappan Stove Co.

The appointment of Robert L. Beeman as a territory manager for the Tappan Stove Co. is announced by A. B. Ritzenthaler, vice president in charge of sales.



Handy Binder

to preserve your copies of the new size

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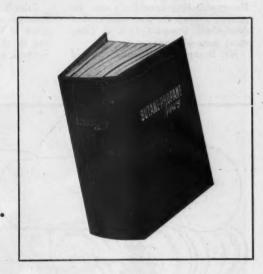
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BUTANE-PROPANE News



A Beautiful DeLuxe Binder

These binders are made especially to preserve copies of your favorite magazine. Holds 12 copies—one full year. Magazines can be inserted or taken out in a second's time, or bound permanently for future reference. Covered with long-lasting maroon Du Pont Fabrikoid with the name Butane-Propane News stamped in gold on cover and backbone. You'll be proud of these beautiful binders. \$2.50 each, postpaid.



BOUND IN A FLASH

Slip open magazine under elastic band it's bound firmly into place. Can be removed just as quickly.



OPENS FLAT

The curved backbone and patented binding system allow each magazine and page to open flat.



BINDS SECURELY

Patented Elasto Cord supports weight of each magazine separately, no mechanical devices to get out of order.



PERMANENT BINDING

Plexon plastic covered wire and instructions supplied with each binder. Replaces elastic cord for permanent binding.

Send check for \$2.50 for each binder or \$3.00 from countries outside U.S.

 Add 3 % Sales Tax for California orders, and 3 ½ % Sales Tax for Los Angeles City orders. Butane-Propane News 198 S. Alvarado St., Los Angeles 57, Calif. Mr. Beeman will manage Tappan's South Carolina sales territory. He became associated with Tappan in May,

Minneapolis-Honeywell

Stephen C. Bixby has been named operations manager of Minneapolis-Honeywell Regulator Co.'s new appliance controls division plant at Gardena, Calif., according to E. M. Toussaint, general manager.

Mr. Bixby formerly was chief of

mechanical design for the company's heating controls division, with head-quarters in Minneapolis. As operations manager at the Gardena plant, he will be in charge of production and engineering.

Worthington

John R. Hamill has been appointed manager of the Kansas City district office of Worthington Corp., according to an announcement by T. J. Kehane, assistant vice president and general sales manager. He will succeed Paul J. Foley who has been appointed general sales manager for Worthington's Plainfield, (N. J.) Works' products.

Mr. Hamill joined Worthington in 1937. From 1950 until the present, he has served as manager of Worthington's Wilmington, Del., branch office.

The Carter Oil Co.



John O. Campbell

Appointment of John O. Campbell, Jr., as assistant manager of The Carter Oil Co.'s crude oil purchasing department, Tulsa, Okla., was announced recently by Dan W. Cameron, department manager.

Mr. Cameron also announced the appointment of Charles M. York as office manager and Dean W. Fenton as crude oil representative for Carter.

Borg-Warner Corp.

Appointment of C. M. Hoover as western sales manager and J. W. Webster as eastern sales manager is announced by R. C. Connell, director of sales for the Norge Division of the Borg-Warner Corp., Chicago.

Mr. Hoover was formerly regional manager with headquarters in Chicago. Mr. Webster was formerly manager of Norge defense contracts.

Vicksburg Tank Co.

W. W. Banks, now president and chairman of the board of the Vicksburg Tank Co., Inc., announces that



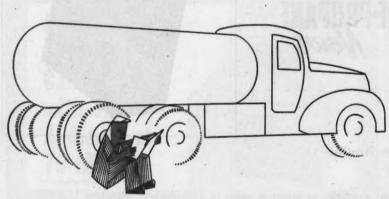
W. W. Banks



C. C. Coloway

the corporation is controlled by the Dallas Tank Co., Inc.

C. C. Caloway Jr., formerly with Wyatt Metal and Boiler Works, has been appointed vice president and general manager of the Vicksburg Tank Co., Inc. Other officers are:



MY TIME (and 1/2) IS YOUR TIME

Demurrage charges on equipment and man-bours wasted due to slow pumping, dip deep into your till.

Smith Pumps save you money through faster delivery, lower labor expense, reduced product loss and freedom from costly shutdowns and service expense.

Among the 14 models for all types of truck or bulk plant service is the pump best suited to your requirements.

To help you make a good pump installation, we offer you assistance — in the form of reprints of articles on pump installations and literature describing the most efficient operating ranges of the various Smith Pump sizes.





SMITH

PRODUCTS COMPANY

1135 MISSION STREET . SOUTH PASADENA, CALIFORNIA

ALWAYS WATER! Add Utility's famous trademark and dependable reputation to the complete line of fine automatic gas water heaters shown below, and you have a customer-winning, profit-making combination. Join the dealers who please their customers and themselves by selling Utility!

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CRUSABER MONARCH BOOSTER CIRCULATOR REGENT PREMIER

See your plumbing supply jobber or distributor. or write for complete information today!

IN HOT

UTILITY APPLIANCE CORP.

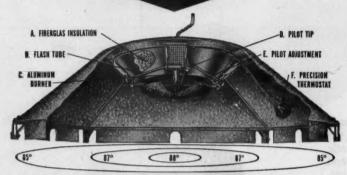
4851 South Alameda St. Los Angeles 58, Calif.

TRADE MARK

AUTOMATIC GAS WATER HEATERS

Utility Appliance Corp. Manufacturers of Gaffers & Sattler and Occidental Automatic Gas Ranges . Utility Automatic Heating Equipment . Utility Air Coolers and Blowers.





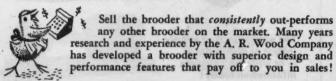
25 YEARS OF LEADERSHIP MAKES A. R. WOOD Brooders Sell BEST Today!

The above cut-away drawing shows the reasons why A. R. Wood Radiant gas brooders are so dependable... why A. R. Wood brooders with a proven 25 year record of satisfactory service, have become the best selling brooders in the poultry business today!

- A. Fiberglas Insulation . . retains heat better. Reduces operating costs.
- B. Flash Tubes . . . light all burners from one pilot should other pilots go out.
- C. Aluminum Burners . . . are removable. Easy to clean . . . easy to reassemble after cleaning.
- D. Pilot Tips . . . of stainless steel. Are non-corrosive, non-clogging.
- E. Pilot Adjustment . . . individual for each pilot light in the brooder.
- F. Precision Thermostat
 . . . keeps temperatures
 constant under all weather conditions.

Uses either liquefied petroleum or natural gas!

BUILD YOUR VOLUME WITH THE GAS BROODER THAT SELLS ITSELF!



Write Now For Complete Information!

A. R. WOOD MFG. CO.

SANTA CRUZ, CALIFORNIA P. O. BOX 602-3

P. O. BOX 97-3

J. O. Davis, vice president; T. J. Tennison Jr., secretary and treasurer; and Sue Gibbons, assistant secretary and treasurer. In addition to Mr. Banks the board of directors consists of Sue Gibbons, W. L. McDowell, J. O. Davis, Henry R. Davis Jr., Toddie Lee Wynne Jr., T. J. Tennison Jr., J. W. Banks, K. (Doc) Eldon, C. C. Caloway Jr., and W. H. Dwyer, Sr.

The capital stock of this corporation has been increased from \$150,000 to \$200,000 for expanding its facilities to better serve the anhydrous ammonia, L. P. gas and steel fabrication industries.

The Vicksburg Tank Co. is located at 409 Lee St., Vicksburg, Miss., and manufactures all types of the "Economy" line of tanks and also all other types of steel fabrication including field erection. The "Economy" line in cludes aboveground and underground propane and butane systems, storage tanks, skid tanks, truck and transport tanks, motor fuel tanks and anhydrous ammonia tanks.

Delta Manufacturing Co.



John T. Hansen has been appointed plant superintendent for Delta Tank Manufacturing Co.'s new Beardstown, Ill., plant, according to Hal S. Phillips, president.

John T. Honsen

A native of Iowa, Mr. Han-

sen has been associated with Delta Tank for the past four years in both sales and production capacities.

Cities Service Oil Co.

Appointment of Aubrey Weatherholt to the newly created position of assistant chief engineer of Cities Service Oil Co. and Cities Service Pipe Line Co., with headquarters in Bartlesville, Okla., is announced by Harris Bateman, manager of engineering for the companies.

Mr. Weatherholt, who has been Kansas district superintendent at Oil Hill for the pipe line company since 1949, assumed his new duties Dec. 1.

Grayson Controls

Al Beck, sales manager of Grayson Controls division, Robertshaw-Fulton Controls Co., has announced the appointment of H. F. "Jake" Jacobsmeyer, to the Grayson Controls sales staff. Mr. Jacobsmeyer will be employed in the capacity of sales promotion engineer.

Mr. Jacobsmeyer was formerly associated with the Southern California Gas Co. and later as sales manager and sales representative for A. O. Smith Corp. in the water heater division.

Dearborn Stove Co.

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A million dollar expansion program involving all three of the firm's manufacturing plants has been announced by Dearborn Stove Co., Dallas, Texas.

Plans are being completed for the construction of a new manufacturing plant in Dallas. The modern, one-story structure will have 150,000 sq. ft. of manufacturing space, plus offices. Construction will begin soon and it is expected the new plant will be completed by the latter part of 1954.

Pending completion of the new plant, 25,000 sq. ft. of manufacturing space will be added to the present Dallas plant in order to provide temporary space for the production of Dearborn products formerly manufactured in Chicago. Dearborn's Chicago plant at 5830 N. Pulaski Road has been shut down and all tools and equipment are being moved to Dallas.

In July of last year Dearborn purchased the Odin Stove Manufacturing Co. at Erie, Pa. Since buying Odin, Dearborn has instituted a program of research and product development on the ranges and clothes dryers and the new 1954 models will be introduced soon.

A. C. Maynard Retires — Will Serve As Consultant



A. C. Maynard

A. C. (A1) Maynard, supervisor of L. P. gas sales for Shell Oil Co. on the Pacific Coast, retires from Shell on January 1, 1954, under the company's retirement plan. He will be available to industry on a

consulting basis covering LPG prob-

Mr. Maynard has been in the petroleum business for over 32 years, having spent 8 years with the old Associated Oil Co., and over 24 years with Shell, the last 17 of which he has been in the L. P. gas end of the business. He was born in San Francisco, and studied mechanical

engineering at the University of California in Berkeley. He is a veteran of World Wars I and II, having served in both as an engineer officer in the Navy; in the first war at sea and in the last, at Mare Island Naval Shipyard with rank of commander.

While Mr. Maynard was in the Shell Oil Co. motor laboratory at Martinez Refinery in 1931, the possibility of operating motor vehicles on LPG was considered. He devised the necessary carburetion to enable a truck to operate on L. P. gas, ran comprehensive tests on same, and obtained comparative data on this fuel

and gasoline, the results of which have been substantiated many times since with the current types of carburgation.

He is a member of the Liquefied Petroleum Gas Association, the California Natural Gasoline Association, and the Pacific Coast Gas Association, having attended the "founding meeting" of the Liquefied Petroleum Gas Association at Dallas in 1937.

His work with Shell has consisted of developing programs and policies to further the sales of L. P. gas, working with the Production, Refining, Supply and Transportation depart-

install, easy to service.



BRUNNER LP GAS TRANSFER UNIT

In bulk plants all over the country, operators report very sizeable gallonage savings with the use of Brunner LPG Transfer Units. The secret, of course, is that the Brunner Unit not only quickly transfers all liquid to the storage tank — but also removes and liquefies gas vapors in the tank car. With a simple turn of a valve, residual vapors in the tank car are removed down to recommended pressures of 15 to 20 lbs. per square inch. PAYS FOR ITSELF... the savings in time and gallons (up to 540 gallons from a 10,000-gallon tankcar) soon pay for your Brunner Transfer Unit — keep on paying big dividends every time you use it.



WRITE FOR FREE BOOKLET that shows how to set up a highly efficient "tank car to storage" transfer system—describes the many safety and long life features found in Brunner LPG Units.

BRUNNER MANUFACTURING COMPANY
Dept. E-14, UTICA, N.Y., U.S.A.

The Brunner Co., Gainesville, Ga. In Canada: Brunner Corp. (Canada) Ltd., Toronto, Ont.

BRUNNER ... the name to look for on INDUSTRIAL GAS COMPRESSORS

ments. He has seen the sales of L. P. gas on the Pacific Coast grow from 23.650.000 gallons in 1936 to 446,250,-000 in 1952. Along with this growth many problems arose which had to be solved. He has had a hand in helping in the solution of many of these, such as developing the State of California LPG Safety Orders, the regulation covering the Weights & Measures for LPG in California, the "Bible of the Industry" - Pamphlet 58, comparative fuel costs for various uses and other pertinent information applicable to the industry.

Although Mr. Maynard is retiring

from Shell, he states he will be available on a consulting basis on L. P. gas problems, such as market surveys. plant inspections, safety talks, as a technical adviser, as an "expert witness" in law suits, etc. He will have his office at his home, 64 Lower Crescent Road, Sausalito, Calif.

Servel, Inc.

Servel's new line of 1954 air conditioning equipment is being introduced to distributors and dealers at a series of six regional sales conferences in January. Dates and places

are: Jan. 4, Los Angeles (Hotel Statler); Jan. 6, Houston (Hotel Shamrock); Jan. 8, Dallas (Hotel Adolphus); Jan. 11, Atlanta (Georgian Terrace hotel): Jan. 13. New York (Hotel Roosevelt; Jan. 15, Chicago (Edgewater Beach hotel).

The conference in Dallas will be especially for gas utility executives.

Arrangements for the regional meetings are being completed under the direction of John A. Gilbreath. Servel's assistant vice president in charge of air conditioning, and H. R. Nielsen, air conditioning sales man-

Demonstrations Believed YOUR FIRST CHOICE **Best Method To Sell Ranges**



C. J. McAllister

The Parlett Gas Co. of Waldorf, Md., has embarked on what its vice president and general manager. C. M. McAllister. terms "our biggest campaign." The objective is to sell 400 Tappan gas ranges.

The campaign began recently with a kick-off dinner meeting for 200 Parlett dealers and sales representatives and will end on the day that the 400th Tappan range is sold.

The key word in this campaign is "Holiday," according to Mr. McAllister, who dreamed up the campaign and is in charge of all arrangements.

The featured range, promotionwise, will be Tappan's new 30-inch "Holiday" gas range, being offered with a premium of a set of International silverplate:

A 1953 Oldsmobile 98 "Holiday" automobile tops the list of more than \$21,000 worth of prizes and premiums being offered to Parlett personnel, dealers and customers during the campaign. The car goes to the Parlett dealer or sales representative whose stub is drawn out of the hat at the end of the campaign. A stub is deposited for each range sold.

Grand prize for the customer will be a Tappan "Holiday" gas range. Since the customer must purchase a range to become eligible for the prize, the award will take the form of a refund on the purchase price.

For the best "prospectors" in Parlett's offices, operations and dealer personnel there is an opportunity to win a 21-inch R.C.A. console television set. Each bona-fide prospect furnished wins the "prospector" one chance on the TV set.



Size of burner head (i.D.)

Overall length

Weight

2"

25"

7#

65#

MUTUAL LIQUID GAS EQUIPMENT CO., Inc.

Premiums of 400 sets of silverplate in mahogany chests are being offered to the 400 purchasers of campaign ranges.

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Side contests have weekly high-bid awards for customers bidding the most for a Tappan "Holiday" during a dinner demonstration and special prize awards for customers who turn in the names of other prospective customers.

Demonstrations of the Tappan "Holiday" occupy an important place in the campaign plans, Mr. McAllister points out. The huge oven capacity of this 30-inch range, which makes it capable of turning out a complete oven meal for 30 people, will be emphasized in these demonstrations. Demonstrations will be conducted in dealers' stores, and complete dinners served to groups of 30 prospects.

The pattern was set at the kick-off dinner on Aug. 31 when seven of these "dinners for 30" were prepared at one time to feed the 200 Parlett dealers and sales representatives who attended the meeting. Conducting the demonstration were 19 Parlett sales representatives assisted by three members of the Tappan Stove Co. sales organization: P. I. Berno, director of merchandising; G. K. Kunkle, district manager; and T. M. Boyd, territory manager.

Concerning such demonstrations Mr. McAllister says: "Here we are getting right down to 'grass roots' selling. Parlett personnel will prove to the people by actual cooking demonstration that no range will outperform these campaign 'specials.' In the buyers' market of today it is necessary not only to have the best product but to prove by actual demonstration that it is the best—and it is what people should buy."

Tank Fabricators to Meet

The second annual convention of the Tank Fabricators Association, Inc. is scheduled to be held at the Roosevelt hotel, New Orleans, Jan. 14-16, according to an announcement by William H. Brooks, executive director.

The three-day meet will include a board of directors session, special committee meetings and general session for discussion of industry problems.

Everett J. Broadaway

Everett J. Broadaway, 59, owner of the E. J. Broadaway Bottle Gas Co., Dayton, Ohio, died Nov. 8 after a long illness. He was a resident of Dayton 40 years. His wife, a daughter and a stepson survive.



Features that promise complete customer satisfaction:

- 1. Fully automatic controls on CP models.
- Waist-high broiler . . . removable for easy cleaning.
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- Lifetime-guaranteed one-piece top burners . . . two giant, two standard size.
- Welded one-piece chassis . . . finished in lifetime porcelain . . . never rusts.
- Selling price up to \$75 less than comparable ranges with more profit.

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Also 16 electric styles. No minimum order. No extras to buy.

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NASHVILLE, TENNESSEE

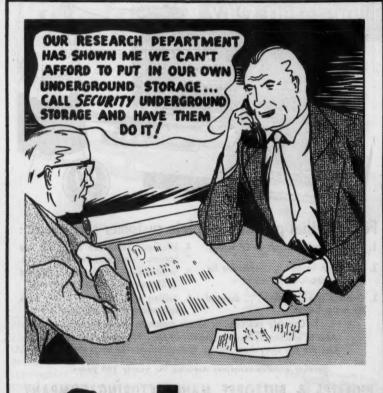


Brine Producing Well is Used for LPG Underground Storage

A NEW milestone in the growth of underground storage for hydrocarbons has been reached in Harris county, Texas, near Houston, where existing brine producing wells are now being used for LPG storage while still producing salt.

The two wells, owned by the Texas Brine Co., are being used as storage by the Ellis Transport Corp., of Houston. Actually, the LPG firm is merely "renting space"—that is, space that





how underground storage can solve your storage problems. It's cheaper, safer and better. Call or write . . . NOW!



SECURITY UNDERGROUND
STORAGE COMPANY

PHONE 2-4067 615 SUNSET DRIVE

Smoky Billue

WICHITA FALLS, TEXAS

is or would be created naturally in the production of brine, and can now be utilized. The storage space increases by about 1,100 barrels each day of brine production.

The project, engineered by G. H. (Smoky) Billue, president of Security Underground Storage Co., Wichita Falls, Texas, brought out these important facts about possible future simultaneous brine and LPG storage joint operations:

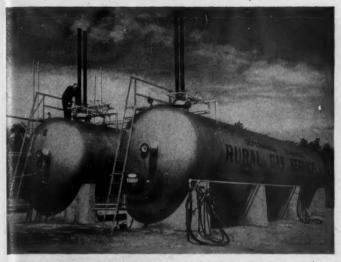
1. Many existing brine operations can be easily converted to hydrocarbon storage (of course, with the brine operations continuing) at a reasonable cost.

2. Storage of hydrocarbons will assure proper protection of the roof in brine wells—thus keeping them from washing out and losing circulation.

 Since brine operations are continuous, storage space constantly is being increased, thus automatically providing additional space for more LPG.

Brine from the two wells goes to the Champion Fiber and Paper Co., Ethyl Corp., and other industrial customers. A crude oil seal protection had been used to keep the roof from washing out, but a leak had developed in the 7-inch casing, allowing the seal to escape, before the LPG storage was begun.

Effective recovery percentages ranged from 93 percent in the initial testing with butane, to a consistent recovery of 99.7 percent after commercial storage was begun. A 4-inch pipe was dropped to 2,635 feet, a 7-inch pipe to 1,550, and a 9%-inch pipe to 1,193. The 4-inch brings the fresh water down, the 7-incher takes the brine out, and the 95%-incher handles the LPG, both in and out of No. 2 well. A sonic survey indicated a hole diameter of 110 feet from 1,200 feet to 1,300, a diameter of between 10 to 20 feet to 2,250, and 20 to 40 to 2,630.





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EVERY DROP OF GAS, including residual vapors, is removed from tank cars at Rural Gas Service.

worthington LPG transfer unit is a compact, self-contained assembly comprised of compressor, motor, starter, suction surge drum, oil filler pot, valves and pressure gauges.

How Rural Gas Service gets all the gas they pay fer

Large New England gas company installs modern Worthington transfer unit

The Rural Gas Service in Westfield, Massachusetts, supplies LP gas to some 40,000 customers throughout New England. Because theirs is a volume business, Rural has to squeeze every drop out of the tank cars which deliver the gas to them.

That's why they installed the new, compact Worthington LPG Transfer Unit to move the LP gas from the tank cars to their storage tanks. The Worthington unit gets all the gas, including the residual vapor.

Take a lesson from Rural and don't leave your profits in the tank car. Learn how quickly a Worthington LPG transfer unit will pay for itself in gas saved. Write for Bulletin H-609-B1A to Worthington Corporation, Harrison, New Jersey.

N.3.4









17 standard systems from 250 to 1,000 gallons — center and end-mount styles. The

quality, safety, and service built into these tanks are second to none. Shipped moisture-free. Registered with National Board.

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Once called a "sad shack" in the country, this house at Lake Waccabuc was converted into a modern home with LPG. The story of how it was done is featured in the January issue of "American Home" magazine.

Modernization With L.P. Gas Makes News In "American Home"

66 BELIEVE it or not," wrote John Durney, district sales manager, Suburban Propane Gas Corp., Mount Kisco, N. Y., "I have hit upon the absolute personification of a house designed for the 'American Home' story."

His letter, written Nov. 10, 1952, to the LP-Gas Information Service, Chicago, with this story tip paid off handsomely. When the more than 9,500,000 readers of American Home look through their January issue, they'll find an interesting remodeling story in which LPG plays a king-size role.

Titled, "Now the Coles Are Cooking With Gas," the article, written by June Towne, tells how the New York couple transformed a "very sad shack" in the country into a modern home. The story lay-out is in three half-page sections, with seven pictures or drawings.

Completely equipped with L. P. gas appliances, the attractive home offers every modern convenience. A new automatic gas range, refrigerator, clothes dryer and incinerator and a compact gas floor furnace were all installed by Suburban Propane under Mr. Durney's direction.

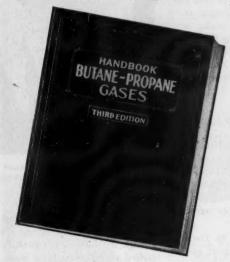
"Before and after" pictures dramatically illustrate the unbelievable improvements made in the home. In addition to the structural changes "a fuel had to be chosen to heat the house automatically," the story says. "When the Coles found out that the bottled or tank gas could be stored in a tank, they felt they were actually bringing city gas conveniences to their remote country home. It gave them another advantage, too—that of having all their major appliances operate on gas."

At the request of Miss Edith Ramsay, household equipment editor of American Home, Mr. Durney drew a blueprint diagram of the basement floor plan to show the location of the L. P. gas appliances. Actual photos of the water heater, incinerator, clothes dryer and floor furnace are super-imposed on the drawing that appears in the magazine article.

On a publicity field trip in 1951, George Schulte, assistant director, LP-Gas Information Service, worked with Mr. Durney to get information and pictures about LPG users. Several of these were suggested to American Home editors, but none was up to editorial requirements.

Still "prospecting" a year later, Mr. Durney came up with the house, family and news story that finally won the interest of the editors. He ran on to the lead when Mrs. Cole called to ask about a heating system.

After Mr. Schulte's presentation of the story idea and visualization picThe Only Complete Reference Book on Liquefied Gas Engineering, Installation and Operation



352 PAGES of Technical Facts, Charts, Diagrams, Photographs, Including Latest Processes and Materials.

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GAS DEALERS . . .

Double Your Income

tures received some response from the editors, Miss Mae Aucello, public relations director of Suburban Propane, and S. J. McLagan, general sales manager, pitched into help put the story over. Mr. McLagan contacted manufacturers to make new appliances available to the Coles because of the pending story. Miss Aucello began making plans to promote the story in Suburban Propane territory when published.

Idea Accepted By Editors

In March, two American Home editors visited the Cole home to make a series of visualization pictures for study by the magazine's editorial board. In short order, the story idea was accepted and final photographs were scheduled.

Chief Photographer S. M. Demarest, his assistant, John Lippert, assistant editor, assigned to the story, and Mr. Schulte spent the day, April 24, setting up a series of pictures. Later in the afternoon, Sal Rubino, Pleasant, N. Y., photographer, arrived to make pictures of the magazine crew in action for Miss Aucello.



Suburban Propane Co. gives Mrs. Henry Cole some pointers on her new LPG range.

Later at a story conference in New York, Miss Ramsay agreed that although the home was tastefully furnished and decorated, the basic news about it was the array of city conveniences made possible by L. P. gas service. This became the main feature of the article. A supplement to the story was also planned about landscaping LPG tank and cylinder installations.

To get first hand information for this part of the story, the gardening editor of American Home visited Suburban Propane headquarters in Whippany. Sketches of landscape treatments were worked out to provide material for the final half-page of copy in the story.

To promote the article, the LP-Gas Information Service is arranging for reprints, which will be available soon.



REGO LP GAS EQUIPMENT

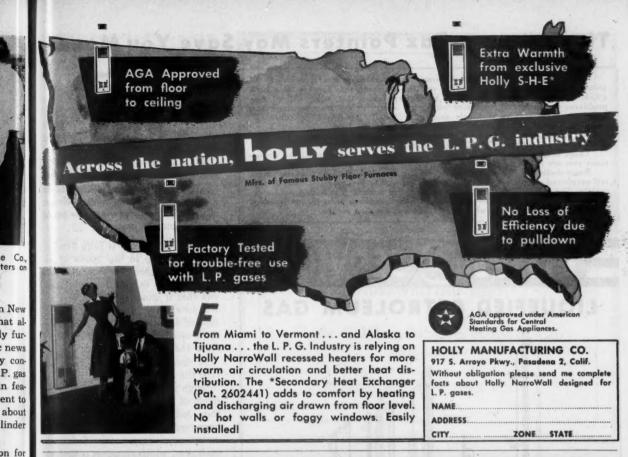
- Rochester Criterion Gauges
- Hose and Fittings
 - Weco-Trol (Automatic control)
 - ICC Cylinders
 - Okadee Valves
 - Brunner LP Gas Compressors
 - Liquid Pumps







Photographer S. M. Demarest (right), and John Lippert, his assistant, discuss the best angles for showing the range installation.





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News

These Income Tax Pointers May Save You Money

While we're giving old Father Time, 1953 version, a hearty boot off the scene, with few regrets, and rolling out the welcome mat for the new babe 1954, we can't help but note with some trepidation the valise full of new problems the little fellow carried under his arm. Not the least of these is a bulky sheaf of papers variously marked "1040," "1040A," "Schedule C," "Capitol Gains," "short form," "long form," and the like.

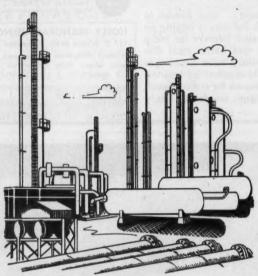
We might as well face up to it now: Those income tax returns just have to be filled out, and now is the time to start.

There might be a silver lining, however: Are you claiming all the deductions you are entitled to?

Some deduction possibilities—as well as a couple of pitfalls that the small, self-employed merchant must take care to skirt—are pointed out in this article. The terse Q and A style is used by the author, a certified public accountant, to give quick answers to some of the questions most frequently asked by the small businessman who must make out his own return.

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 - · A CAPABLE SUPPLIER
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Q: My business showed a net loss last year. I had no other income. Must I still file an income tax return?

A: If the gross income (the government's way of saying gross profit) of your business was \$600 or higher you must file the tax return. Naturally, since there was a net loss you'd have nothing to pay.

Q: My typewriter is fully depreciated according to my books of account, yet a typewriter mechanic told me that it is in excellent condition and that it would probably last for ten more years. Am I entitled to any type of deduction for this condition? If so, where on the tax return can ! show the deduction?

A: Since you have already recovered the full cost of your typewriter through your annual depreciation deductions you cannot make any further deduction. What has actually happened is that you had overestimated your depreciation deduction each year, which situation is perfectly allowable if your annual estimate had been a reasonable one. (The "bible" for reasonableness is Bulletin F of the Treasury Department.)

Q: My business sustained a net operating loss for 1953. I understand the government makes provision for deducting the amount of the loss from the income of other years. Which years are they?

A: This net operating loss for 1953 must first be carried backward to 1952. Any remaining excess must be carried forward to the years 1954-1958, inclusive, until used up. If you are interested in getting your refund quickly (and who isn't?)-assuming you have a carry-back to 1952 which entitles you to a refund-you should apply for the refund on Form 1045.

Q. As a self-employed person 1 know I should pay the Social Security tax required in Form 1040. My friend claims I must pay 3%, I believe I should pay 11/2%. Am I right?

A: No, but your friend is also wrong. The rate is 21/4%, which rate it is interesting to note is half-way between the rates you give.

Q: Like most small businesses the

records in mine are not as detailed as I'd like them to be. For example, during the year I spend quite a bit of money (in the nature of petty cash items) for which I don't have invoices as substantiation. How does Uncle Sam view this situation insofar as allowing the deductions I claim for these items?

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A: Although technically speaking an Internal Revenue agent can disallow as a deduction any item for which no documentary substantiation is available, it is generally the practice for an agent to be reasonable. To be specific-if your business did a volume of \$50,000, if you deducted \$100 as an entertainment and traveling deduction and you could only prove (by actual invoices) \$85 of the \$100 total, the chances are 9 out of 10 the agent would allow the \$15 balance in total. Of course, you should realize that in tax law (unlike most other types of law) the burden of proof is always on the taxpayer and, therefore, you should not feel disgruntled if a given agent insists on complete documentation before allowing any deduction.

Q: May I use the cash basis of accounting for income tax purposes?

A: No, because you carry inventories of merchandise. The tax law is very specific. If you are in business where merchandise is bought and sold (even though a good portion of your total income may come from rendering services) it is mandatory to use the accrual basis of accounting. It is interesting to note that the accrual basis is by far the more scientific basis, since one of its basic premises is that expenses should be attached to the year in which they were incurred rather than to the year in which they were paid.

Q: We are a small partnership and have only been in business for a few months. Must we file a partnership tax return as well as individual tax returns?

A: Yes. However, the partnership return is merely an information return. Nothing has to be paid. It tells the government that Brown and Jones showed a net profit of \$14,000, and that Brown's share (which should be shown on Brown's individual return on line 3 of Schedule C of Form 1040) is \$8000 and Jones' share is \$6000.

Q: My wife passed away this past year. Where do I deduct the cost of

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. POWER DRIVES

the cemetery lot and the funeral expenses?

A: Unfortunately, these items are not deductible. Some people unwittingly consider these items as medical expenses; however, they are quite wrong.

Q: I sold my truck which I bought two years ago at a profit. Is this considered ordinary income or gain from sale of a capital asset?

A: Although a truck used in your business is not considered a capital asset the law makes special provision where such an item is held for more than six months and is sold at a gain. In such a case the gain is taxable as a long-term capital gain. However, if a loss had been sustained it would be treated as an ordinary loss, which would mean that the total loss would be deductible.

Q: My partner and I began our business in August, 1953. Must we close our books on Dec. 31, 1953?

A: Not necessarily. The law states that, during your first year in business, you have the option of ending your financial year at the end of any month through your 12th month in business. If you decide on ending your financial year on the last day of any month other than December you are on a fiscal year basis as contradistinguished from the calendar year basis. Naturally, once you have decided on your month you must adhere to your selection and close your books at the end of each 12 month cycle. The income tax return is still due 21/2 months after the end of the fiscal year.

Q: I had two businesses in 1953. My net profit in one was \$8500, the net loss in the other was \$5500. In computing my self-employment tax can I combine the figures and show a net profit of \$3000?

A: Yes, but be certain to fill out two Schedule C's.

Q: Where on the income tax return do I deduct for freight?

A: It all depends on the kind of freight. If the freight is on incoming merchandise it is technically known as Freight Inward and should be shown in the Cost of Goods Sold section on line 6. If, on the other hand, the freight is on outgoing merchandise it should be shown in the section entitled "Other Business Deductions" on line 21. Both of the sections mentioned are part of Schedule C.

Gas Fuel Technology Course Accredited By Engineers

The Gas Fuel Technology department at Southern Technical Institute was recently accredited by the Engineers' Council for Professional De. velopment, Southern Tech's Director L. V. Johnson has announced. Because the gas fuel program was established after the first accreditation inspection of the school, representatives of the Engineers' Council had not heretofore had the opportunity to pass on the program. This accreditation inspection, made every five years, was conducted at Southern Tech earlier in the year, but results of the visitation were only recently announced.

The gas fuel program leads to the "Associate in Science Degree in Gas Fuel Technology." The program is a two-year, college-level course.

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LPG Heat Used In Dry Kiln Operation

The world's first propane gas-fired plywood veneer dry kiln is now in operation at the Corvallis, Wash., Plywood plant. Located on the municipal airport there, the plant itself is new and has an oven capacity of 30 million sq. ft. of veneer per month, figured on the basis of %-in. panels, which are being produced in 4- and 8-ft. lengths, 4 ft. wide.

Though its full possibilities have not yet been realized, its owners and operators are optimistic concerning its future. Al Overgard, president of the Corvallis Plywood Co. and general manager of operations, said recently they have absolute control of the temperature of the kiln because of its unique features—completely automatic operation and controls that insure uniformity of production and safety.

When it comes out of the kiln the veneer is transported to the glue room, where it is glued, pressed, sawed and trimmed. At present the Corvallis plant is using green veneer procured in Eugene, but the company is open to offers from any favorable source, said Mr. Overgard. The dry kiln, designed especially to use propane gas for heating, while in the experimental stage, was supplied with gas from tank trucks, but recently a huge 20,000-gal. stage tank was installed to connect with the burners and is now supplying them.

Fuel transmission equipment was installed under the supervision of F. W. Commins, San Francisco, engineer for Calor Gas Co.

Are Uniform Motor Fuel Tax Laws Possible For LPG

(Continued from Page 68)

station at any town—there will be another within a hundred miles. The police department sends out a short wave call for the highway patrolman. You just wait. He will come to you, and if the service is not exactly prompt, it certainly is courteous. There is no more delightful place to wait for a highway patrolman to deliver a permit than Colorado.

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News

State Variations

Many states have variations of the permit, tax in advance, or special license system for transient or resident vehicles, surrounded with more or less red tape, and with or without the posting of bonds for regular, frequent, or continuous use of the state highways while driving on butane or propane. It isn't uniform, and it falls with particular weight on transient vehicles and interstate operators of scheduled service. It does not need to be this way, particularly as regards transients. California, Louisiana, Alabama, Missouri, and several other states abandon all formalities as far as the transient is concerned. He pays his tax as part of the cost of his fuel, and the tax gets to the state treasury by processes which do not inconvenience him in the least, and of which few travelers are even aware. It cannot always be that simple in connection with truck operation, but it can be simpler and less cumbersome than most states make

The problem of assessing and administering the LPG motor fuel tax is not the same as with the gasoline tax. This is because the major uses of the fuels are quite different—nearly all gasoline is burned in vehicles on the highways, and is therefore subject to tax. By far the greatest percentage of LPG is burned in non-highway uses which are not subject to motor vehicle fuel tax. Therein lies the necessary difference in tax procedure.

The state collects the tax on gasoline from the refiner, if the gasoline is produced within the state, or from the "importer" if it is produced in another state. The procedure is very simple. One of these "primary sources" sends so many gallons to market in the state during the month. The tax on that number of gallons is calculated, and a check is sent to the tax collector for the amount due. From that point on down through the entire marketing chain, nobody pays any attention to the tax. They do not need to, because it has become part of the price of the gasoline. Inevitably some of this tax-paid gasoline is used in farm tractors, stationary engines, and on construction jobs or locations where public thoroughfares are not used. This fuel is not subject to tax, so in nearly all states it is possible for the user to get a refund of the amount of the state tax by keeping the necessary records and filing claims at stated periods. Regardless of minor differences of procedure, this is what most of the state laws add up to. This provides minimum inconvenience and administrative expense, at the same time returning the highest possible net returns. The most commendable factor in the whole situation is that unless the user is burning the fuel off the highway, there is absolutely nothing for him to do except pay the taxes.

Convenience Is Important

The same convenience enjoyed in the purchase of gasoline is highly desirable when buying LPG for motor vehicle use, but it is not possible to simplify the collection and administration of the tax laws to the extent that is accomplished with gasoline. The reason for this is that LPG can not be taxed at the source without causing great inconvenience to the vast majority of customers, who do not use the fuel in highway vehicles and would therefore be entitled to refunds. Taxation at the source for highway use could only lead to a terrific burden of record keeping and claims filing, which would become a major point of sales resistance in selling fuel for non-highway uses. At the same time the administrative and auditing costs to the state would go so high that there would be little money left for highway purposes.

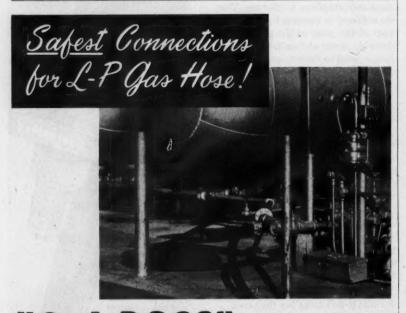


Because highway users of L. P. gas are in the minority, the tax procedure must be turned around so the tax is collected only from those who owe for the use of the highways. That sounds simple, but doing it with minimum expense and inconvenience and with maximum yield to the state is not so easy. Many problems arise that are not present in collecting the gasoline tax. One of the important considerations, to the state, is to accomplish the collection with the fewest possible auditing points, and still give all parties concerned

a deal that will not lead to great dissatisfaction, even though it is not possible to keep everybody happy.

Let's look at some of the typical situations that arise. Joe Smith operates a service station, which includes a "butane" tank and dispenser. His customers want to come in and buy their fuel as they do gasoline, pay for it, and get gone, without any formality like showing a permit, signing a tax receipt, or any of the other nuisances that plague the dispensing of L. P. gas in many of our states. By long time precedent, he is entitled to

this consideration. Somebody has to keen the records and nav the tax on that fuel. Should it be the service station operator, or the distributor who may be supplying several service stations? We might put it on the distributor, who would be required to pay taxes on all fuel delivered to the service station accounts. We could not go farther back than the distributor, because if we did so, this would bring in the endless agony of obtaining refunds for all of the distributor's non-highway customers. But let's take another look at the service station operator's business. Quite a lot of his volume may be filling trailer bottles, on which no tax is due. Somebody has to keep records. and those records are subject to audit by the fuel tax collector. What we want is the simplest and least expensive way to do the job, with fairness to all including the customers. From this example it might appear that the best solution is to have the distributor apply the tax to fuel delivered to the service station, and have the service station operator turn in receipts for non-highway fuel sold to trailerites and others, these to provide the basis for credits in settling the service station account with the distributor, and the distributor's tax account with the state. Now let's look at another class of account.



"G J-BOSS" GROUND JOINT FEMALE COUPLINGS—STYLE X-34



Unequalled for safe, durable, trouble-free connections on all L-P Gas hose. Ground joint union between stem and spud provides washerless, leakproof seal. Furnished with super-strong "Boss" Offset and Interlocking Clamps. All parts steel or malleable iron, thoroughly rustproofed. Sizes ½" to 6", inclusive. Also available in washer type, and with companion "Boss" Male Couplings.

Stocked by Manufacturers and Distributors of Industrial Rubber Products.

DIXON Valve & Coupling Co.

GENERAL OFFICES & FACTORY-PHILADELPHIA 22, PA. BRANCHES-CHICAGO BIRMINGHAM . LOS ANGELES . HOUSTON . DIXON VALVE & COUPLING CO., LTD., TORONTO

Fleet Operator Customer

Fleet operator X buys LPG for his trucks. He has no other use for the fuel, so the simplest way of handling the taxes would be through the distributor. There would be no need for licensing or bonding the fleet operator in connection with his use of fuel. Suppose this same operator is in the sand and gravel business, and as an adjunct to this main business he operates a fleet of ready-mix concrete trucks. He has engines on stationary work or excavation jobs in the plant that never get out on the highway Each ready-mix outfit has two engines, one driving the truck and the other turning the hopper. The fuel that drives the hopper should not be subject to highway tax. He must keep the records that determine how much tax should be paid. Would it be better for him to pay tax on all his fuel to the distributor and claim a refund or credit, or should he pay his tax direct to the state for the amount of fuel used on the highway? If the tax is paid and the refunds credited through the distributor, there are two people keeping records and subject to audit. If the operator pays taxes through the distributor, but gets his refunds from the state, his capital is tied up for the time required to get the refund, and in some states that takes months. In this case it would simplify everything to have him buy his fuel without tax, keep his records of highway and non-highway use, and remit directly to the state for the tax due.

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Another Tax Problem

Still another problem enters into the tax picture as far as interstate truck operations are concerned-but this is directly parallel to the gasoline tax situation, and will no doubt be finally worked out on the same basis. Suppose this interstate operator is based in a state having lower fuel taxes than the surrounding states into which he operates. Those other states are not going to allow his vehicles to come in with full fuel tanks and go out with the tanks empty. This is the one point on which the various state gasoline tax laws vary the most. The real complications will enter for the trucker operating on L. P. gas if he is forced to handle the accounting and paying of his motor fuel tax in a different way in each state.

Special complications arise when distributors wish to use fuel from their cargo tanks to operate their engines. This is permitted in several states, but in others it is not. Where it is permissible, the operators must post bonds or cash deposits, keep careful mileage records, and pay taxes either on an arbitrary estimate of consumption, or in the more liberal states on the basis of previously agreed-upon consumption of the individual vehicles. Obviously there is no other way of handling this situation than for the operator to pay his taxes direct to the state. Distributors operating their vehicles in this manner must obviously go through the customary state tax department procedure of obtaining licenses or permits, and posting bonds.

As shown in the accompanying tabulation, the bonds required in the various states vary from nominal amounts up to a high minimum of \$3000. The state is justified in requiring a bond which will cover the amount of tax accruing in the time





that it is expected to be outstanding. Small operators are justified in regarding a \$3000 minimum bond as "unjustified, punitive, and confiscatory."

With fairness to all concerned, it seems logical that our industry should work toward simplification and standardization of state motor vehicle fuel tax laws as applied to the L. P. gas industry on the basis of minimum inconvenience to the users of the fuel for operating engines, and the greatest possible reduction of ac-

counting costs for the unpaid tax collectors in the industry, together with the lowest consistent administrative costs for the state.

All states collect gasoline taxes on the basis of so many cents per gallon, because that method gives the best possible balance between wear and tear on the highways and net returns to the state. It is not quite equitable, but any other method of collection would be more expensive, and would result in the necessity for a higher tax. To be fair to all, this tax should be based on the amount of fuel actually consumed in driving the vehicle on the highway.

That sounds very simple. Now, how do we do it? Fuel is put into vehicle tanks through public service stations. through private fleet service pumps. and to a lesser extent through the pumps of L. P. gas distributors' storage plants. The public service station may sell a little fuel for tax-free uses. The private fleet station may or may not dispense fuel for tax-free purposes. Farmers using a little LPG for their trucks on the highway and a great deal for tractors and domestic uses must be considered as private fleet stations. LPG distributors put only a very small percentage of their total throughput into motor vehicle tanks.

Can't Pass Tax To Source

Can the LPG motor fuel tax be passed back through the chain of distribution to the source, as is done with gasoline? Definitely no. Can it be passed back as far as the distributor? It isn't practical unless he collects and pays tax on all fuel delivered to the types of accounts using fuel for highway motor vehicles, and either lets them struggle with their own refund claims for non-highway use, or credits their accounts as they turn in certificates for non-highway use. That would not be satisfactory either to him or to the state. And what would be his tax liability in the case of a chiseling farmer who buys tax-free and then uses the fuel in his truck on the highway? The situation in either case would not be nice to contemplate. Either of these methods would require double auditing by the tax department. Isn't there a simpler way? We think there is.

The distributor who uses LPG in his own vehicles, and sells a little into the tanks of passing vehicles has a simple problem of accounting. He now keeps records on his trucks, and records of all fuel sold. A rubber stamp on all slips for motor vehicle fuel sales could provide quick identification, and compiling the morthly tax data would be simple in the extreme.

Private fleet stations and public service stations likewise present simple problems. They keep—or at least should keep—records of the fuel



BLODGETT'S TEAM OF

Business Builders!

Every Blodgett Oven and Pyrastove you sell means delivering more tanks of L.P. gas to your customer. Statistics show that the average baker operates a Blodgett No. 982 approximately seven hours a day and will use approximately 60% of its rated input of 100,000 B.T.u's per hour—six days a week. Show your customer how to take full advantage of modern baking methods by selecting a sectionally fired Blodgett Oven. You'll find it will result in customer satisfaction . . . and more gas deliveries to you.

Blodgett's rocket fast PYRA-STOVE is ideal for stock pot work with its great flexibility and convenient work height. Rated at 100,000 B.T.u.



The G. S. BLODGETT Co. Inc.

50 LAKESIDE AVENUE BURLINGTON, VERMONT IN CANADA, GARLAND-BLODGETT, LTD., 2256 EGLINGTON WEST TORONTO, ONTARIO

that goes through their pumps. It is either used to operate motor vehicles on the highway, or it is used for something else. This is easy to record. The record is the basis for the tax payment, just the same as the daily cash receipts of a hardware store are the basis for its sales tax.

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What's the answer? Place the responsibility for the collection and remittance of LPG motor fuel taxes at the point of delivery into the vehicle tanks, and collect only on the fuel that operates vehicles on the highways. It will make tax collectors out of quite a lot of people, but it will not overload any of them. It will avoid double accounting, and double auditing.

Perhaps these conceptions seem oversimplified. No doubt they are. This degree of simplification may not be quite attainable. But it is something to shout at, and such an objective must certainly result in a more workable and less cumbersome situation that the present mixed up mess of good, bad, and unwieldy state regulations is giving us.

(The material in the tables reproduced herewith is the result of a recent questionnaire to the motor fuel tax collectors of the 48 states. Some of the answers were difficult to understand. We do not feel competent to make interpretations, so publish them as received.)

C. C. Lee Appointed Green's Fuel Coordinator

C. C. Lee has been appointed "Coordinator" for Green's Fuel, Inc. effective Nov. 2, succeeding J. S. Dunford. Mr. Lee will make his headquarters in Athens Ga.

For four years Mr. Lee was with the National Butane Co., of Mobile; he left that firm to become associated with Pond-Johnson Co., Mobile, representing them on LPG carburetion in Florida, Georgia, North Carolina, South Carolina and Virginia.

Don Bollinger Buys Oklahoma Butane Firm

Don Bollinger, Talihina, Okla., has purchased the Kiamichi Valley interests of the Hodgen Butane Company of Talihina. The sale includes all equipment of the former company, and the new firm will be known as Don Bollinger LP-Gas, Inc.

STEADY VAPOR PRESSURE UNDER ALL WEATHER CONDITIONS!

IS ASSURED WITH

LPG VAPORIZERS

- Continuous full load output at any desired gas pressure, regardless of ambient temperature conditions, is a "GUARANTEED CERTAINTY" with the industry-tested Paracoil Steam Operated LPG Vaporizer.
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- Entirely safe. No gas flames used. Operates on low pressure steam.

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STANDARD PRODUCTION MODELS UP TO 6000 GPH

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There's a ready demand for the safety-engineered Krug Pump. Your customers will enjoy, as have thousands of others, the low cost and ease of operation. Don't miss this ready market. Write today for full par-

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LOW COST PORTABLE HEATERS

For Winter Construction — Portable Sonic Ray Salamander. 85,000 BTU. Model D-complete with hose and reau-Special - \$22.50



Unvented Space Heater--25,000 BTU. Limited quantity.

\$12.75



Write For Dealer Price List on L. P. Equipment. Lowest Prices in United States.

HOME GAS EQUIPMENT CO.

Dept. 12B, 1301 Carnegie Ave.

Cleveland, Ohio

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GAS LOGS



EVERYWHERE LOOK AT THESE ADVANTAGES:

1. Rectorseal #2 won't dissolve in LPG, natural or manufactured gas, anhydrous ammonia, freen or water.

2. It's thin in the can . . . thick in the joint.

3. It never hardens, cracks, crumbles or gets brittle.

4. It's smoother, cleaner — easy to use without waste from the brush-top cans.

Preferred!

BY LPG DEALERS

Cans.
AVAILABLE IN: 1 pt., ½ pt. and ¼ pt.
BRUSH-TOP CANS.
Write Today for Free Sample
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MAKING THE L-P GAS INDUSTRY SAFER

Very attractive and practical. Model LB-24 Logs are as "birch-like" that it's almost impossible to tell them from genuine logs. They sell on sight for around \$38.00 retail.

AGA approved for all gases. 24,000 BTU. Bar steel base assembly, cast iron burner, brass valve. Size 24" wide, 11" deep, 17" high.

Order from your Job-ber or write for litera-ture on Birch Logs and complete heater line.

ARMSTRONG

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Answers to Problems On Page 70 of December Issue

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Problem 1. (1) Tell the customer to close all doors leading from the kitchen to other parts of the house. open all doors and windows providing outside ventilation to the kitchen, avoiding turning on or off any electrical switches. Then go outside and turn off the gas valve at the tank or cylinder, and remain out of the kitchen until a company service man arrives. (2) Dispatch a man to take care of the situation. (3) Get the gas completely evacuated from the kitchen. Make a visible check to see if the source of leak can be detected. and if so, fix it. If not, then see that all sources of ignition are avoided, and locate leak by letting a little pressure into the line, sniffing for gas odor, and testing with soapy water. If gas was escaping through open appliance valve, instruct the customer regarding this. Make sure, before leaving, that all appliance pilots are of the correct type-100% safety shut-off, and that they are in adjustment.

Problem 2. Any escaped gas is a potential fire hazard. If it should become accidentally ignited in the closed compartment, it could produce a nasty explosion, and there is always the chance that if ignited the hoses may burn, producing enough heat to create further hazards. And don't think that accidental ignition is impossible because the cabinet is closed It has happened. There should never be any loose steel tools or other objects in this cabinet that could strike a spark if jolted around. The cabinet should not be completely enclosed. A large hole several inches across should be cut in the bottom, and covered with heavy hardware cloth to prevent loss of adapters and other equipment carried in the compartment. Some means of admitting air at or near the top is needed to provide complete circulation. Closed cabinets are a great improvement in the appearance of the truck, but if used they should be ventilated to prevent accumulation of hazardous amounts of gas.

Problem 3. Gas will escape from the pressure relief valves of the cylinders in the path of the flame, which

Answers to Problems (Continued)

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will ignite and may possibly affect still other cylinders. There is the possibility of bursting of any cylinders that exhaust all their liquid and continue to be heated. The first step is to turn the damaged cylinder so the flame will not strike against other cylinders. Under no circumstances should the fire from this cylinder be extinguished, as it would merely provide an accumulation of gas which could ignite other objects surrounding the location of the cylinders. It must be allowed to burn out, as there is no chance to close this leak.

Problem 4. If you think you can put the fire out with your hand extinguisher, do so. If not, close the valve on the end of the bulk truck hose (or hoses); disconnect the hose (or hoses); get the truck out of the danger zone as quickly as possible; return with the fire extinguisher, which you will now use only in case the fire spreads to some place where one hand extinguished will do some good; if possible, get a garden hose and spray the customer's tank if it is exposed to heat. Keep that tank cool enough to prevent discharge through the pressure relief valve. You do not need to be quiet all this time. If you shout loud enough, you might be able to get someone to help put out the fire in the garage, or call the fire department if there is one around.

Problem 5. It was pure luck in this case that the escape of gas was discovered before it ignited. Fortunately, traffic at that hour of the morning was slight. There was nothing that could be done about the gas-it was there, and it could not be shut off. Opening the outlet line to atmosphere should have closed the excess flow valve, but the vapor cloud had spread so far that nobody could get to the valve. The men who prevented this potential disaster got all sources of ignition in the neighborhood extinguished, established road blocks to keep vehicles out the danger zone, and evacuated everyone from the affected area. Four hours later the gas was dispersed to a safe level, and normal life could be resumed. It provides a working example of how quick thinking and quick action can avoid a serious disaster.



THOMAS TRUCK & CASTER COMPANY

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PROFIT 2 WAYS with JOHNSON'S Automatic LP-Gas Stock Tank Heater

Profit from the sale of the stock tank heater adaptable for any tank—concrete, wooden or steel. The automatic LP-Gas heater that means ice-free water . . . Johnson.

Profit from an increased gas load — Johnson's LP-Gas Stock Tank Heater averages 600 lbs. per year. Multiply 600 by the number of customers you can sell and you have a sizable gas business.



YOUR CUSTOMERS PROFIT TOO

It's been proven that warm water increases beef gains and milk production. Cattle take less feed yet maintain steady gains when they have lots of warm water during winter months. A Johnson LP-Gas Heater can pay for itself in one season. It's

easy to install. Stays lit and is completely automatic. It maintains 48° water temperature in the coldest weather. Guaranteed free of condensate problems.

Contact your Johnson salesman or write today.

JOHNSON GAS APPLIANCE CO.

597 E AVENUE N.W. CEDAR RAPIDS, IOWA

Fifty Years of Quality Manufacture of Gas Burning Equipment



"City of Tampa," first large capacity LPG barge to be built, is shown after its launching. It will serve Warren Petroleum Co.'s new LPG distribution terminal at Tampa, Fla., and a terminal now under construction at Matanzas, Cuba.

Seagoing Barge Launched by Warren

THE "City of Tampa," first large capacity sea-going L. P. gas barge ever constructed, has been placed in service by Warren Petroleum Corp. after its launching at Beaumont, Texas, recently.

With the completion of the barge's maiden voyage from Houston, Texas, to Tampa, Fla., with a cargo of 500,000 gallons of LPG, Warren also has placed in operation its recently completed 1,000,000 gallon capacity distributing terminal at Tampa. When a terminal now under construction at Matanzas, Cuba, is completed, the barge also will transport L. P. gas to that port.

The "City of Tampa" was constructed by the Shipbuilding Division of Bethlehem Steel Co. at its Beaumont, Texas, yards after models were tested in a towing tank operated by the University of Michigan. Its designed towing speed is 10½ knots and a sea-going tug, the "Warrengas," was constructed by the Cook Towing Co. of Houston for specific assignment to this barge.

Mrs. Howard E. Felt, wife of Warren's vice president in charge of the L. P. Gas Division, was sponsor for the launching ceremonies at Beaumont. Her matron of honor was Mrs. James E. Allison, wife of Warren's president. Approximately 200 invited guests of Warren and Bethlehem witnessed the launching and later attended a dinner at the Hotel Beaumont.

The barge is 242 feet long, 48 feet wide, and 18 feet from keel to deck. It has seven horizontal tanks below its deck. Each tank has a dome extending through the deck and all pip-

ing connections are made into the domes above the deck. Five of the tanks are approximately 14 feet in diameter and 83 feet long and have a capacity of approximately 82,000 gallons each. The other two are approximately 14 feet in diameter and 59 feet in length with capacities of approximately 60,000 gallons each. They have a steel thickness of 1.3 inches and are believed to be among the largest ever fabricated for the storage or transportation of propane. The terminal at Tampa is equipped with barge unloading and transport truck loading facilities. LPG will be hauled by transport truck direct from the terminal to Warren's distributors and utility and industrial consumers within a 100 to 125-mileradius of Tampa.

The importance of the terminal and barge to the Tampa area is evidenced by the fact that they will provide adjacent large-scale storage from which Warren's distributors can obtain overnight delivery. This will permit the distributors to handle easily both the usual and the unusual peak load demands.

General Controls Opens New Plant

General Controls Co., Burbank, Calif., recently played host to scores of civic and business leaders, plus a large group of customers and dealers, at dedication ceremonies marking completion of the company's new appliance controls plant at Alameda and Flower streets in Burbank.

A specially built panoramic display was used to show the part that automatic controls play in American industrial and household life. It was created to explain with graphic displays and working equipment the many ways in which people have become dependent upon automatic controls to heat and cool their homes, prepare their meals, wash and dry their clothes, and even do the dishes with an automatic source of hot water.

The exhibit also explained many of the industrial applications of automatic controls which minimize repetitious effort that formerly depended upon human attention.

The new 120,000 sq. ft. plant was designed and built especially for the Grayson-Greenamyer Appliance Controls Division of General Controls Co., and is located just across the Glendale-Burbank city line from the company's main plant and national headquarters in Glendale. Space has been provided in the design of the new plant for approximately 1000 employes.

Company officials on hand for the ceremonies included A. W. Ray, executive vice president; John F. Ray, vice president in charge of sales; Richard A. Ray, vice president in charge of manufacturing; I. H. Nye, treasurer; and John H. Grayson, pioneer designer and manufacturer of automatic controls, who has been in charge of research and development on appliance controls since the Grayson-Greenamyer Co. was purchased by General Controls Co. three years



General Controls' new 120,000 sq. ft. plant in Glendale, California.

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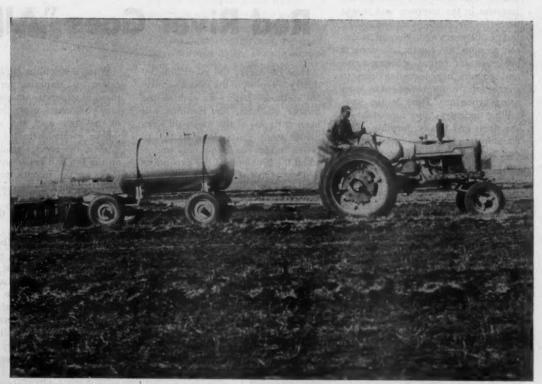
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News

Butane-Propane

POWER SECTION

INSTALLATION . CARBURETION . SERVICING



In many sections of the West L. P. gas powered tractors will soon be pulling propane fueled alfalfa flamers through the fields.

By Ruel McDaniel

A NYTHING that will run on gasoline will run on butane," is a slogan used by C. C. Hankins to sell butane for industrial use. That he has used the slogan, and other business-building elements to advantage, is indicated by the fact that he sells 2,500,000 gallons of butane yearly, mostly for industrial use.

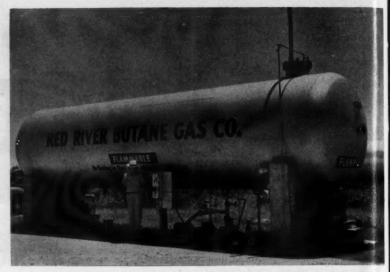
Mr. Hankins owns Red River Butane Gas Co., Bossier City, La., across the river from Shreveport. He pioneered butane in his area, particularly for industrial use, having started his company 10 years ago. Five years ago he built his present facilities on 12 acres of land he bought on a main highway on the outskirts of the city.

In specializing in industrial butane sales, the company further specializes by concentrating on definite industries. First comes the oil well driller, because oil well drilling is big business in the territory and it was big when Mr. Hankins started selling butane 10 years ago. Second is cotton ginning, for North Louisiana is an important cotton growing area and ginners are opened-minded to suggestions for improvement in operating procedure. Next is the sawmilling industry, also important in the area; and finally, farming. This classification is divided into two general fields, insofar as butane sales are concerned: Irrigation and tractor operation. Farms are large in the Red River valley, and Mr. Hankins has installed several 6000-gallon tanks on farms for storage of butane. He has one farmer-customer who operates 30 tractors, all on butane.

Another source of important volume, not directly classified as industrial, is the general trucking field.

In every industry where the company now does a profitable business, Mr. Hankins did much pioneering. In most cases, it was necessary to sell prospects on the feasability of converting from gasoline to butane first, then after selling them on the idea he still had to sell the butane.

Selling was and still is on a personal level. Mr. Hankins is his only outside salesman, and he spends 75% of his time in the field, calling on old customers to see that they're satisfied with their butane service and prospects whose operations could be switched over to butane. He confines most of his calls to members of the industries in which he specializes.



C. C. Hankins points to controls on storage tank which permits filling and withdrawing at same time:

Red River Goes "All Ou

How he covers the oil-drilling industry is typical of his sales and service methods. Before he entered the butane business, Mr. Hankins had been with one of the major oil companies many years—long enough to retire, in fact—so he not only understood the problems of the expanding drilling industry but he knew quite a number of contractors in the drilling business. It was here he concentrated his sales effort.

When he calls on a drilling contractor who is not using butane, he assumes that the customer knows only the rudiments of butane power and he proceeds from that basis. He suggests that he be permitted to convert his power over to butane fueling, and he tells him exactly what the conversion will cost (usually around \$500) and he makes it plain that the amount of the conversion job is payable on regular open account basis.

Once he sells a driller on butane, he then takes complete charge of his fuel problem. When a rig is ready to move to a new location, a Hankins truck, with power winch, is on hand to disconnect the butane connections and assist in moving the butane equipment. The company truck may haul it or it may be loaded on the customer's truck under a Hankins man's supervision.

When the drilling rig is on new location, a Hankins serviceman is there to supervise unloading the butane equipment, move the skid tanks to the right spot and set them up where wanted. If the customer wishes, the service man even stays on the job and hooks up the butane tanks to the motors, to be certain that the hook-up is done exactly right.

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For all this service, the company charges nothing.

Mr. Hankins subscribes to an oil field reporting service, so that he is able to learn ahead of time about new drilling locations and who the drilling contractors are on the new wells. He knows most of the contractors operating in his territory. If he notes that a new drilling outfit is coming into the territory, he gets out and gets acquainted as quickly as possible. If his rig is butane-equipped, he sells him fuel; if it isn't, he tries to sell him a conversion job, if the power plant is such that it can be converted.

For example, one day Mr. Hankins noted in his oil field report that a certain Dallas drilling contractor was going to drill a well about 30 miles from Bossier City. Mr. Hankins knew the contractor. So he telephoned him at once, told him about

the Hankins butane service to drillers. As a result, before the drilling rig was unloaded at the drilling site, a butane tank was on hand and a service man was standing by to make the necessary connections. Fuel was ready long before the rig was ready.

"In serving drilling contractors," Mr. Hankins stresses, "we find it highly important to show up at the drilling site with good trucks. We use the best trucks available for oil field work, because roads are bad, particularly in winter. We carry a heavy winch on each truck, good tires and power to spare. Naturally, our trucks are fueled with butane. When a powerful looking truck shows up, either to set up a butane system for a new site or to move a rig from an old site, it inspires confidence. The drilling contractor and crew instinctively feel that, regard-

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less of weather and the condition of makeshift roads, fuel will be delivered and the butane system will be serviced as needed."

Truck conversions represent an important field for Red River Butane Gas Co. Mr. Hankins has compiled cost figures on a number of truck fleet operators who have switched from gasoline to butane, and he uses these figures to sell other fleet owners.

Recently, for example, he cooperated with a customer and found that the customer was saving nine cents a gallon on fuel since switching to butane, over former fuel costs. This

operator uses between 12,000 and 15,000 gallons of butane a month. Obviously, his fuel saving is important; and these figures, quoted along with the name of the customer, are powerful selling factors when talking to other prospects.

Mr. Hankins gets truck conversion business by contacting personally and by telephone all local truck operators.

He adds to his truck business by having installed a special butane service station on his property adjacent to the plant and office. This service station sells, through one pump, from 800 to 1000 gallons of butane daily.

The service station is fed by a twoinch line extending from the main storage tank, about 30 yards away. The line is three feet underground. The unit consists of a Peerless pump, a Neptune meter and a five horsepower explosive-proof motor. All wiring is underground for safety.

Service from the service station and the main storage tank are available 24 hours daily. On the storage tank are double lines, enabling the plant to pump into the tank from a delivery truck while a service station tank may be taking gas from the tank.

On the storage tank, Mr. Hankins has rigged up an electric light for use in night servicing. The bulb is protected by a heavy glass globe, which in turn is protected by a metal frame. All wiring is underground here as well as on the entire premises. The light hook-up was inspected and passed by insurance underwriters without hesitation. The light cost \$280, and it is worth it, Mr. Hankins declares.

Business comes to the service sta-

tion from trucks who frequently travel the main cross-state highway in front of the butane plant. Mr. Hankins has obtained much of this service station business by contacting truck operators who travel this highway, and inviting them to make use of the service station and offering them open-account credit for their drivers. He makes these contacts in person locally, by telephone if in other cities.

In spite of the initial selling, continued growth of volume depends on the service the company renders its industrial customers, Mr. Hankins stresses; and he accomplishes this with eight highly skilled serviceman drivers, who do much more than merely fill the tanks of customers. They know butane all the way, Mr. Hankins points out, and they are able to make any sort of hook-up a customer needs, advise him on the use of his butane-powered equipment and work with him closely to make certain that deliveries are made in advance of actual needs. Most customers have standing orders for filling their tanks, except those whose use of fuel is erratic, and even here, drivers have an understanding with their customers as to how much time they should allow between the moment an order is phoned in until it is delivered.

Another service rendered by the company which helps to keep truck operators sold on the company is relative to a truck owner trading in his old truck on a new one. Mr. Hankins sends a service man to remove the butane conversion equipment and tank from the old truck before it is turned over to the buyer, and he installs the equipment so removed on the new vehicle.



Red River service trucks operate on LPG and are filled from service station operated by C. C. Hankins.



Leading and unloading at storage tank is facilitated by this electric light designed by Mr. Hankins.

Use of LPG Recommended as Important Step in L.A. Smog Control

A CLEARCUT program for ending the smog menace in Los Angeles was before the County Board of Supervisors recently along with a blunt demand from Governor Goodwin J. Knight for immediate action.

"Both the plan and the governor's call for action were advanced at a week-end conference in the State Building, second in a series planned by Mr. Knight to bring the smog problem under control."

Thus began a leading article in the Dec. 7 issue of the Los Angeles Daily News. Other leading dailies in the affected area commented similarly.

Smog, the blinding, stinging pollution of the atmosphere, is becoming one of the major municipal problems of many of our larger cities and industrial areas. Under conditions of poor air circulation these pollutants accumulate until they become a menace to health. All large cities with high concentrations of industry and automobiles suffer periodically, but due to geographical features, climatic conditions, and rapid growth of population, Los Angeles has become one of the really critical spots.

Highlight of Governor Knight's conference was the release of a 16-page report prepared by a group of scientists and technologists forming the Citizens Smog Committee. The report listed seven steps on which immediate action is needed, and called on the board of Supervisors to reorganize and expand the Air Pollution Control District so such action can be taken.

Point 6 of the seven-point program reads as follows:

"6—Large motor vehicles, particularly trucks and buses, shall be required to use liquefied petroleum gas (butane, propane, or butane-propane mixtures) or equally satisfactory means of abating noxious exhaust fumes as rapidly as possible."



The report was prepared by Dr. Arnold O. Beckman, president of Beckman Instruments, South Pasadena, chairman; Dr. A. J. Haagen-Smit, professor of biochemistry, California Institute of Technology; Dr. Joseph Kaplan, head of the Department of Meteorology, UCLA; Dr. L. Reed Brantley, head of the Department of Chemistry, Occidental College; and Dr. John W. Poole, head of the Department of Science, John Muir College, Pasadena.

In their extensive study of the problem of air pollution, the Citizens Smog Committee examined many of the contributing factors, unmistakeable among which were the fumes

emanating from the large fleet of diesel buses which provide the principal means of public transportation throughout the Los Angeles area, and the very high number of diesel and gasoline operated motor trucks operating within the metropolitan area. Reports received from Chicago, San Antonio, Wichita, and other cities in which extensive fleets of LPG powered buses provide metropolitan transportation without producing objectionable exhaust fumes, were an important factor in arriving at the committee's recommendation in favor of converting the heavy vehicles operating within the city to liquefied petroleum gas.

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The Case of the "Buck Passing" Truck Dealer

The Question?

Butane-Propane News 198 South Alvarado St. Los Angeles 57, Calif. Dear Sirs:

I have some Chevrolet trucks. I shaved the head down on two of them, and after less than 30,000 miles the rods burned out in one engine. The other burned out the rods after about 15,000 miles. I had to have the motors rebuilt.

The dealer said that I shouldn't have done anything to the head, and that was the cause of the trouble. I traded for two more, but didn't do anything to the heads. One of them had 25,700 miles on it and the rods have hammered out in it, and it had been rattling for a month or more before they burned out.

I talked to the dealer again and he said that it was using butane which caused them to go bad. I would appreciate you writing me a letter stating that butane was as clean a fuel as could be used in a motor.

Do you have any information that I could give the Chevrolet people? Also what do you think is wrong that the motors do not last? Do you suggest that I change the brand of trucks? If they don't stand behind their trucks, it looks like I will have to change brands.

Yours truly, (Signed) Harold Everett Everett Evergas Co. Magee, Mississippi

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We have your letter of Nov. 7 regarding your troubles with your Chevrolet trucks, and your buckpassing Chevrolet dealer. Human nature has not changed. Twenty-five years ago all burned valves were blamed on Ethyl gasoline. We used to beat that down by collecting authenticated reports of fleet operators who were experiencing improved valve life on Ethyl gasoline, then when we had trouble with a Chevrolet dealer, we would show him a photostat of one of those testimonial letters about a fleet of Fords, and ask him, "What's the matter with your Chevrolets? Aren't they as good as Fords?" There is no other defense that is as potent as a strong attack. That's what your Chevy dealer is trying to do to you.

Why don't you look through your back copies of Butane-Propane News, and pick out two or three articles giving the experience of fleet operators who report upwards of 200,000 miles without mechanical trouble, and without an overhaul? Remember, he is attacking your operating practices because he is uncertain, so you should show him articles about anything but Chevrolets. These other

makes are doing all right on butane. Will he admit that his engine is not as good as the others? When you get him in that spot, he's ready to listen to reason, particularly since you can tell him that unless he helps you to find and cure the cause of those bearing failures, your next truck will be some other make that can stand up under the rigors of burning butane.

As a matter of fact, there are a good many thousand Chevrolet trucks delivering L. P. gas, and the



THE PERFORMANCE CURVE IS PRE-SET in each Century Carburetor by the design and synchronizing of its injector type gas metering valve and butter-fly air valve. You get a perfect mixture at all times.

Only one single "tune up." adjustment is required—just set it, seal it and forget it. No wonder more and more manufacturers of tractors, trucks and engines are factory installing Century. Get the facts; write for Bulletin No. 153. CENTURY GAS EQUIPMENT CO., 11188 Long Beach Blvd., Lynwood, California



majority of them are operating on either butane or propane. Many of them have had the heads planed. We have heard no more than an average number of reports of engine failures. If butane caused any of these failures, it is logical that it would cause failures quite generally, and if this happened, we would know it, the distributors would tell each other, and sales of Chevrolet trucks for butane delivery service would practically stop. It hasn't happened, and the Chevrolet is still one of the most

popular foundations for small bulk trucks.

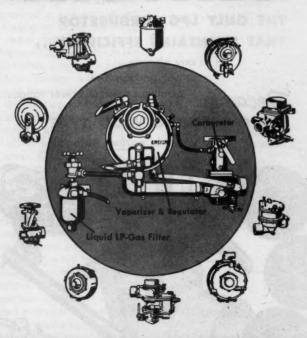
These facts indicate that your bearing trouble is not because the engines are Chevrolets, and not because they are operating on butane. It is just bearing trouble. We have had bearing trouble as long as we have had engines. If you had been operating your trucks on gasoline, and had experienced this same bearing trouble, your dealer would have recognized that it was bearing trouble, and would have tried to cure the trouble.

We cannot tell from your letter whether these bearings pounded out. or burned out. You mention both conditions, but they are different. We have not seen the bearings, so are not in position to decide. Bearings that pound out generally show failure first directly under the shaft of the connecting rod. Even though the first rod to go may show complete failure, and appear to be burned out. other rods in the engine will show the preliminary stages-bearing metal crystalizing and cracking out under the shaft. Bearings that burn out may show a variety of appearances. If only one bearing fails, as happens when an oil passage in the crankshaft gets plugged, it is generally a pretty complete failure, with little remaining bearing metal in the shell. If there is a general lubrication failure throughout the engine. the bearings will show several stages of failure, generally from melting of the metal in patches on the least affected to complete loss of metal in the more extreme cases. The "rattling for a month" that you mentioned indicated that the bearings were becoming loose, and that failure was approaching. Next time you get such a message from your bearings. we suggest that you do not wait a month. Complete failure of one bearing is likely to necessitate a crankshaft grinding job, whereas replacement of the bearing before the cushion of soft metal is lost avoids this possible extra expense.

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MOST COMPLETE LINE 5-500 HORSEPOWER

The Ensign carburetor you buy is a masterpiece when it comes to performance and quality of product. With Ensign you eliminate guess work. Take starting for example: the patented Ensign easy-starting device actually gives you a carburetor within a carburetor for starting only. Result—fast, easy starting with no flooding.

Ensign has pioneered in carburetion development for over forty years. Tell us your engine make, model and speed. We'll recommend the best equipment to do the job. Send for complete Ensign literature today.



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DEALERS AND DISTRIBUTORS IN ALL PRINCIPAL CITIES

Bearing Failure Causes

Now, let's look at the causes of bearing failure. Poor bearing material or improper installation could do it, but these were apparently new engines with factory bearings. As noted above, we have not heard of any epidemic of failures of standard bearings. Your dealer would probably agree with us that the standard Chevrolet bearings are at least competitive in quality. There are other possible causes that are much more likely.

Could it be pounding? That is not very likely, because it generally comes from fuel with too low antiknock value, or timing the ignition too far ahead. On account of its high antiknock value—much higher than gasoline—you do not get pounding from fuel knock with butane. The fuel distribution is also better than

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More Power To You

POWER that packs a wallop . . . finer transportation that costs less per mile — both yours with an Ellis "Bu-Power" Manifold.

ONE installation will prove to you that no installation is complete without an Ellis "Bu-Power" Manifold.

In most cities, dial information for the number of Ellis Manifold Distributor

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KIT CONTAINS CONVERTER CARBURETOR ADAPTER STRAINER INSTALLATION KIT ELECTRIC SHUT-OFFS TRACTOR KITS \$19.75 TO \$44.13

Write, wire or call us for your National Catalog today. Contact our home office for available dealerships. THE COM-PLETE LINE FOR BUTANE DEALERS.

UNIVERSAL PRODUCTS, INC.

LPG Carburetion Division
6918 Lindberg Street, Houston 17, Texas

with gasoline, so the engine runs smoother—a fact that can be readily demonstrated to your Chevrolet dealer.

Smooth operation at low speed provides the temptation for the driver to lug the engine down. This is always hard on bearings, particularly when you are hauling a heavy load with a small engine. It is one of the possible causes of short bearing life, and it is up to you to see that it does not happen. Remember what Ford says? Drive by the tachometer, and keep the engine speed up to at least 2000 rpm. That's for Ford. You may not need to go quite that strong with the Chevrolet, but your bearings will last longer if you see that the engines are kept at good speed while pulling.

Some people like to infer mysterious causes, like "too much heat in the fuel" or "too much pressure on the bearings." Let's look at those things from the engineering point of view. The engines do all right on gasoline, as your dealer will readily admit. It takes just so much pressure on the bearings to produce the horsepower that the Chevrolet engine develops. It makes no difference to the engine whether that pressure comes from burning gasoline, or burning butane. There is a definite relationship between bearing pressure and engine power output, and it does not change with changes of fuel, as long as we avoid pounding from detonation, or engine-knock. If you have not increased the engine horsepower by burning butane-and you have not-then the pressure can be no greater than it is with gasoline. The engineers also tell us that there is a definite relationship between heat and pressure-other conditions being equal, so much heat will produce so much pressure, and it does not make a bit of difference whether you produce this heat with gasoline, diesel fuel, butane, or buttermilk.

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Guessing Is Risky

What else could cause short bearing life? Lubrication failure. Transcontinental guessing is risky, but from what you have told us, this seems like the most logical cause of the trouble that you have experienced. We are sticking our neck far out, and guessing that because these engines are working hard, you have gone to extremes in protecting them with lubricating oil. You may be using oil that is too heavy for the job, and you may be using oil containing too much detergent and other compounds, or you may be doing both. Either will shorten bearing life in butane-operated engines, and either can cause lubrication failure even though the crankcase is full of oil. It might be the right treatment for an engine operating on gasoline or diesel fuel, but we have seen numerous cases where it was not right when burning butane. Even though this guess might be wrong, we will go into detail on the matter because the knowledge might help you to prevent failure in customers' engines for which you supply fuel.

Oil gets thicker instead of thinner in a butane-fired engine. It also stays clean, because there are no fuel deposits to pollute it. We can use it longer between drains. Oil must flow through the bearings at a certain rate to keep them cool. If it becomes too thick, it no longer flows fast enough, and the fluid friction due to slow movement adds to the bearing heat instead of providing cooling. The re-









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sult is burned out bearings. If a butane engine is not using much oil, and you start out with SAE 40, adding more of the same as required to maintain the proper level, in the course of a few thousand miles it has thickened to SAE 50, and in a shorter time it reaches SAE 60. It is right and proper to use oil longer between drains when burning butane, provided that the oil does not become too thick. You control that by using lighter oil for the original fill, and still lighter oil for make-up, if needed to maintain the correct working viscosity. This subject is thoroughly covered in Chapter 20 of the Butane-Propane Power Manual.

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Type of Oil Is Important

"Heavy duty" oils are compounded with large amounts of detergent and other special ingredients to meet the special conditions in gasoline and diesel engines doing extra heavy work. Some of these conditions do not exist in engines running on L. P. gas, and experience shows us that with this fuel the heavy duty oils are not only unnecessary, but in some cases they actually bring in trouble in bearings and valves. We know of many cases where these troubles were eliminated by the simple expedient of changing to an oil that had little or none of the special ingredients used in the "heavy duty" oils. We are not condemning these oils. They are useful and necessary with other fuels, but they can be terribly out of place in L. P. gas engines. A small amount of detergent is probably desirable in oil for LPG engines it has anti-oxident qualities which help to prevent cold corrosion when the engine is not operating. This is also covered in Chapter 20 of the Power Manual. Any oil of suitable viscosity that meets the "Military 2104" specifications should be satisfactory in your Chevrolet engines.

You have probably had enough experience to know that it does not pay to run your carburetor too lean, or to time the ignition ahead of the point that gives maximum power. Either of these errors can contribute to short bearing life. Possibly you should recheck these adjustments occasionally according to the instructions given in the Power Manual, just to make sure that nobody has been playing around with them. Fleet operators tell us that some drivers HERE IT 15!

a NEW extra Lightweight extra Compact LPG Vaporizer and Regulator.

for Conversion of

TAXIS . FORK LIFTS . TRACTORS DOOR-TO-DOOR DELIVERY TRUCKS

The BEAM 120 was built to satisfy the dealer and the user. The most complete, most compact, lightest in weight regulator ever offered to the carburetion field. This unit has built in both power and idle screws, three fuel outlets, two mounting bolls, with no primers or chokes necessary as starting aids. Other new features include a built-in vacuum shutoff which insures that the fuel is 100 % locked off when the secies stors rotating like the Ream sures that the tuel is 100% locked off when the engine stops rotating. Use the Beam 120 with any type or style carburetor or as a very simple spud-In requiring only a pipe nipple and one length of hose be-tween regulator and carburetor.



Check these Outstanding FEATURES

- Weight . . . 3¾ pounds
- Capacity 110 H.P.
- Size 5¾" Dia., 4" Deep.
- Built-in Power Screw.
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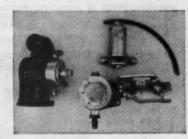


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For FARMALL "M" and SUPER "M" TRACTORS

- FEATURING -

- · Quick, easy installation.
- · No extra water hoses, no plumbing job to do.
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- Top performance and economy.
- · Compact new vaporizer in special thermostat casting affords quick warm-up in coldest weather.
- Gas carburetor section replaces gasoline bowl; governor connection not disturbed.
- · Compact new #344 Regulator.



JGS MODEL M-344 KIT

- ALSO AVAILABLE -

Model M-BR Kit with Balanced Regulator, and Spud-In Kits for combination gas-gasoline operation.

FOR DETAILS - SEE YOUR NEAREST J&S DISTRIBUTOR, OR WRITE US

Twenty Years in Gas Carburetion"



have trouble leaving adjustments alone. We know one operator who cured a great deal of maintenance trouble on a large fleet of butaneburning trucks by sealing the adjustments on all the carburetors.

We hope that somewhere in this rather long discussion we have covered the cause of your bearing trouble. As for your trouble with your dealer, that is not confined to those handling Chevrolets. We run into it

periodically in every line. Not so long ago, there were several International truck dealers who had the same attitude, and they were quite positive. Imagine how red their faces became when the factory announced that they were putting LPG equipped models into production. Some of the John Deere tractor dealers also took strong stands against LPG conversions, and then got two factoryequipped models to explain and sell.

Twin-Barrel Carburetor Developed By Algas

Another new L. P. gas carburetor has just been announced by American Liquid Gas Corp., Los Angeles. To meet the engine requirements of the 1953 John Deere tractors, models 50, 60 and 70, "Algas" has developed a twin-barrel carburetor, to be used in making conversions from gasoline to LPG carburetion.

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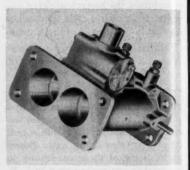
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The new carburetor has been engineered so that it has exactly the same characteristics as the gasoline



carburetor which is now on the 1953 John Deere tractors, models 50, 60 and 70. This new gasoline carburetor being used by John Deere is twin barrel in design and has certain engineering improvements which result in smoother operation.

In designing their new L. P. gas carburetor, Algas has taken these changes into consideration so as to enable John Deere owners to make their tractor conversion very simple.

Complete information on this new product as well as data on the complete Algas line may be had by writing directly to American Liquid Gas Corp., 1109 Santa Fe Ave., Los Angeles 21, Calif.

The "Know-How" you need for Installations and Conversions

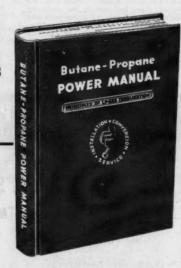
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Second Printing — Nov. 1953 With Revisions

Published by

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Here is the first authoritative guide ever published for the rapidly expanding LPG power market. Basic facts of engines, fuel, and power are given in easy-to-understand language; then careful directions and clear illustrations take you step-by-step through installations, conversions, servicing . . . everything needed in a practical working manual for practical men. Nearly 5,000 copies of the BUTANE-PROPANE POW-ER MANUAL have already been sold.



A De Luxe Edition in handy pocket-size, flexible binding.
 23 Chapters, 334 Pages, Completely Illustrated.

OUTLINE OF CONTENTS

- 1. The Nature of L. P. Gas
- **Basic Engine Facts**
- 3. Basic Facts of Fuel Combustion Engines
- Factors Affecting Operating
 Economy and Power
 L. P. Gas Carburetion Systems
- 6. Regulating Gas Pressure and
- Temperature 7. Fuel Supply System. Vehicle Tanks and Equipment
- Natural Gas Carburetion
- Planning the L. P. Gas Installation
- 10. Checking the Engine's Condition Raising the Compression Ratio
- 12. Cooling the Intake Manifold

- 13. Ignition Problems
- 14. Tractor Conversions
- Truck and Bus Conversions
- 16. Passenger Car and Taxicab Conversions
- 17. Industrial Engine Conversions
- 18. Installing and Adjusting L. P. Gas-
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BUTANE-PROPANE News, 198 S. Alvarado St., Los Ang. 57, Cal.

Suburban Propane Serves Marine Trade

Mark Anton, president of the Suburban Propane Gas Corp. of Whippany, New Jersey, recently announced that through a subsidiary, the Suburban Marine Gas Co., Suburban will supply boat owners with a coastwise gas service.

Promising the East Coast boat owners Gas In Every Port at a uniform price, this company has established marine dealers to handle Suburban gas and gas appliances from Maine to Florida. The service permits boat owners to exchange gas cylinders along the Atlantic coast and on the inland waterways.

The Suburban approved gas ranges, specially designed for marine use,

140

consists of 2 burner, 3 burner, 4 burner, and 4 burner with oven and broiler ranges. Still at the experimental stage is a self-contained 2 burner gas unit with disposable cylinders—ideal for a small boat with no room for gas storage.

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The gas systems recommended, depending on the size of the boat and type of appliance, range from a one 5 pound cylinder to two 20 pound cylinders, with 100 pound cylinders being used for commercial craft. Following just a few months of activity, Mr. Anton said, "We are satisfied that boat owners were a poorly served group of consumers. There is no doubt that propane is the best fuel for 'cooking afloat.' Our future plans include water heating, space heating and possibly refrigerators."

Canadian Palmer Stendel Name Change Approved

At the annual meeting of Canadian Palmer Stendel Oil Corp. held recently share owners approved financing arrangements whereby The Chase National Bank and Consolidated Coppermines Corp. will provide \$1,100,000 for the construction and installation of two portable gas processing plants to be located on California Standard Co.'s Acheson Field near Edmonton, Alberta, and at the Big Valley Field of Canadian Gulf Oil Co. between Edmonton and Calgary.

Share owners also approved change of the corporate name from Canadian Palmer Stendel Oil Corp. to Progas of Canada, Inc.

New members elected to the board of directors are: Chester D. Tripp, president of Consolidated Coppermines Corp.; Duncan M. Spencer, director of Consolidated Coppermines and chairman of the board of Fiduciary Trust Co., and Donn Langford, general manager of Progas of Canada, Inc.

Texas Dealers Show Set For June 23-25

The Southwestern Butane Exposition, largest state or regional show in the LPG industry, is scheduled to be held in Dallas, June 23-25. It is produced and presented by the Texas Butane Dealers Association.

Floor plans for the show are now available for exhibitors and copies may be obtained by writing Lyle Blanton, chairman, convention and trade show committee, Texas Butane Dealers Association, 705 Lamar Boulevard, Austin, Texas.



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WANTED

SALES REPRESENTATIVE

For sale of our L. P. gas and NH₃ systems and storage to dealers in Oregon - Washington territory. Age 27 to 45. Free to travel. Liberal commissions. Salary and expenses during indoctrination period. Only experienced salesmen need apply. Airmail brief resume of background and sales experience to: General Manager of Sales, The J. B. Beaird Company, Inc., P. O. Box 1115, Shreveport, La.

SITUATIONS WANTED

SALES AND SERVICE MANAGER, 10 years experience in L. P. gas field. References furnished. Write Box 140, BUTANE-PRO-PANE News, 198 S. Alvarado St., Los Angeles 57. Calif.

EXPERIENCED MANAGER OF WHOLEsale and retail gas operations desires position in related capacity. Sales promotion know-how. Write Box 125, BUTANE-PROPANE News, 198 S. Alvarado St., Los Angeles 57, Calif.

MANAGER WITH BROAD BACKGROUND in management field and over four years partner/manager of L. P. gas operation. Looking for Northern California, Oregon, Washington, Idaho location. Know all phases of retail. Will invest. Write Box 15, BUTANE-PROPANE News, 198 S. Alvarado St., Los Angeles 57, Calif.

BUSINESS OPPORTUNITIES OFFERED

FOR SALE: INDEPENDENT BOTTLED gas and appliance business located in central state, good town; churches, schools. Handling Magic Chef, Tappan, Chambers, Waldorf, other brands. Well-balanced inventory, low store rent. Serving 500 accounts, business growing. One-half ton pickup truck, one five-room frame residence on paved street. Service manager will stay if you want him. He knows the business and all customers. Anyone could operate this business with his assistance. Ready to step into. \$40,000.00 cash. Owner old—wants to retire. Write Box 120, BUTANE-PROPANE News, 198 S. Alvarado St., Los Angeles 57, Calif.

FOR SALE: PROFITABLE L. P. GAS business and general store. Low cost operation. Good contact with major oil company. East coast location. Reasonably priced. Write Box 135, BUTANE-PROPANE News, 198 S. Alvarado St., Los Angeles 57, Calif.

GAS FINANCING

We finance the installation of gathering systems, compressor stations, processing plants, etc., and purchase casinghead and natural gas. Well owners are paid for their gas and also participate in operation. Reply in confidence. Box 155, BUTANE-PROPANE News, 198 S. Alvarado St., Los Angeles 57, Calif.

THRIVING, ESTABLISHED L. P. GAS business with other valuable franchises, located in the heart of West Texas Irrigation District. Annual volume exceeds 2½ million gallons. Prospective buyer must show financial ability to handle \$10,000 deal. Write Box 115, BUTANE-PROPANE News, 198 S. Alvarado St., Los Angeles 57, Calif.

FOR SALE: ONE OF THE FINEST LPG businesses in this part of the south. Doing around \$158,000 gross—a balanced gas load. Never a gas shortage, can furnish good gas contract. More than ample storage; late model rucks; located in rich farm country; 698 diversified customers; 7¢ margin on gas; no competition in town. A big profit maker—long bright future ahead. You will be shown the books and reason for offering for sale. Will require \$35,000 down payment. It will pay you to come for a look. Write Box 110, BUTANE-PROPANE News, 198 S. Alvarado St., Los Angeles 57, Calif

FOR SALE: GROWING L. P. GAS BUSIness in rich southern farming area. Bulk storage, trucks, etc., including bottle filling plant. Wonderful opportunity. Owner retiring from active business. Write Box 150, BUTANE-PROPANE News, 198 S. Alvarado St., Los Angeles 57, Calif

BUSINESS OPPORTUNITIES WANTED

CONTACT US TODAY TO BUY OR SELL a gas business. We cover all states east of the Miss. River—from Minnesota to Maine to Miami. We're in Florida because it's a good place to live—it's easy to reach your from here. Today we have a Miami company for \$110,000 cash; central Tennessee for \$270,000 terms; west coast Florida for \$275,000 terms. SALES, APPRAISALS, FINANCING. MEMBER LPGA and AGA. EDWARD R. GOUDIE INC., Box 1177, Stuart, Florida, Tel.: 450.

EQUIPMENT WANTED

WE WANT TO BUY A USED BUTANE storage tank. Send price and specifications to: Prepco Corporation, Edgerton, Wisconsin.

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NEW: IMMEDIATE DELIVERY. 1400 WG U69 propane lightweight twin barrel delivery unit. Mounted on new 1953 2-ton, 2-speed Chevrolet truck. Fill and vapor hose assemblica-Viking Mechanical Seal Pump—power take-off assembly. READY TO GO FOR \$3845.00 tax paid. Also available at low extra cost: meters-fire extinguisher—motor fuel tank and L. P. carburetion. American Tank & Manufacturing Co., 2136 West Commerce Street, Dallas, Texas. P. O. Box 5525. Telephone Riverside 9183.

NEED A WORKHORSE? WE HAVE NEW 1953 Model 353 GMCsg 2 ton, 2 speed, w/8:25 tires equipped with a 1400 WG Nor-Tex Standard Twin Propane unit. It's skirted, plumbed and perfectly balanced! Complete with recessed fuel tank, Viking Kk190 pump with mechanical seal, 50' filler hose, ICC lights and power takeoff with spline jack shaft. Finish is aluminum paint over red oxide. Tax paid and ready to go. \$4043.80 FOB North Texas Tank Co., Box 519, Phone Central 5416, Denton, Texas.

A PACKAGE UNIT SPECIAL! A NEW 1953 2 ton, 2 speed Chevrolet equipped with a 1250 WG Nor-Tex Standard Twin Propane Unit. It's skirted, plumbed and perfectly balanced! Complete with recessed fuel tank, Viking KK190 pump with mechanical seal, 50' filler hose, ICC lights and power take-off with spline jack shaft. Finish is aluminum paint over red oxide. Tax paid and ready to go \$3919.85 FOB North Texas Tank Co., Box 519, Phone Central 5416, Denton, Texas.

SPECIAL: AMERICAN "BETTER-BILT" lightweight 1400 water gallon U69 propane twin barrel delivery unit, with Viking Mechanical Seal Pump—Neptune Print-O-Meter—fill and vapor hose assembly—mounted on new 1953 2-ton, 2-speed GMC; 125 hp engine with 8.25 tires—READY FOR SERVICE. PRICED AT \$4475.00 tax paid FOB Dallas. Other sizes available at comparable low cost. American Tank & Manufacturing Co., 2136 W. Commerce Street, Dallas, Texas. P. O. Box 5525. Telephone Riverside 9183.

PERFECTION PLUS! A NEW 1400 WG twin Trinity model #103 propane unit with double door rear compartment, housing Neptune #433 Print-O-Meter and remote control Okadee valves; excise tax paid, KK190 Viking pump, PTO&DS, plumbng, ICC and directional lights, tuel tank, filler hose, white enamel, mounted on 1953 2-ton 2-speed F-600 Ford or #6400 Cherrolet chassis. \$4550.00 FOB Trinity Steel Co., Inc., 3301 S. Lamar, HUnter 8321, Dallas, Texas.

A DELUXE TRINITY TWIN UNIT MODel 103, complete with KK-190 Viking pump, remote control Okadee valves, Neptune Print-O-Meter, 54 gal. fuel tank in rear compartment, 50 ft. filler hose, white enamel and tax paid, mounted on new 1953 RP-160 factory LPG equipped International chassis, ready to go at \$4,988.00, F.O.B. Trinity Steel Company, Inc., 3301 S. Lamar St., Dallas, Texas. Phone HUnter 8321,

FOR SALE: ONE 6670 W.G. TRAILER like new. Also one 6200 W.G. trailer like new, will meet all specifications. Write Box 326, Stafford, Kansas.

FOR SALE-TRUCKS & TRAILERS-Cont.

FOR SALE: 5200 GALLON U69 TRANSport, built in 1951, tandem axle, ready to go. \$5250.00. Southwest Gas Equipment Co., Liberal Kansas.

USED PROPANE DELIVERY TRUCK FOR sale. 1953 Chev. 2-ton, 2-speed axle, heater. Enging propane carburetion with 1400 W. G. twin propane tank, Model 100, mechanical seal pumph, hose, piped complete. This unit is only 6 months old with 11,000 miles. Excellent condition. A bargain at \$3,495.00. Easy terms. Int. also. White River Distributors, Inc., Batesville, Ark.

THIS IS IT—NEW 1954 INTERNATIONAL RP-160, factory equipped for propane, 2-speed, complete with 1400 W.G. twin propane tank, mechanical seal pump, filler hose, piped complete, painted, lights and ready to deliver gas at only \$4,255.00. Add \$190.00 for 1600 twin or \$300.00 for 1800 twin. 25% down, balance 18 months at 5% interest. White River Distributors, Inc., Batesville, Ark.

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COMPARE OUR PRICES—A NEW 1400 W. G. twin Model 100 propane tank with Viking KK-190 pump, PTO, plumbing, ICC lights, filler hose, white enamel, Neptune #433 Print-O-Meter; excise tax paid, mounted on NEW 1954 6400 2-ton, 2-speed Chevrolet or Ford: \$4,230.00. Easy terms. WHITE RIVER DISTRIBUTORS, INC., Batesville, Ark.

IN A HURRY FOR A PROPANE TRUCK? Immediate to 3-day delivery on any model NEW unit, 600 to 2,000 gallon. Any type pump, meter, propane carburetion, etc., that you desire. All units are tested for leaks by pumping gas through them before they leave our shop. SEV-ERAL USED UNITS also available. 25% down, balance in 18 payments with 5% interest financed through our local bank. CALL USDAY OR NIGHT ANY DAY. Preston W. Grace, White River Distributors, Inc., Phones 570 or 686, Batesville, Ark.

FOR SALE: 1947 UTILITY GOOSE-NECK semi-trl with 2342 gal. American Pipe and Steel 250 W.P. tank, Smith 20 gal. pump, Brodie meter. Trlr has air brakes, 825 rubber, small trlr hitch on rear, Fruehauf manual 5th wheel. Pump connects to tractor with removable shaft. Price: \$3,000. Southwest Rural Gas Co., P. O. Box 997, Victorville, Calif.

TRANSPORT FOR SALE: 1951 GMC 470 tractor, excellent condition. 3600 gal. tanks on ahop-built trailer. Rubber like new. Will sacrifice: \$3800.00. Lally's Furniture Store, 115 N. Main St., Newton, Miss.

OVER 9,000 GAL. WATER CAPACITY propane tank truck and trailer. 1953 Peterbilt truck with Hall-Scott motor, dual drive, either 10-32 or 11-22 rubber. 1953 Frameless Trailmobile with lightweight Superior propane tanks. With or without a job. Write Box 130, BUTANE-PROPANE News, 198 S. Alvarado St., Los Angeles 57, Calif.

TRANSPORT, 1947 DELTA TRAILER, twin-barrel 4228-W.G. capacity. 1947 RD-459-K-11 International tractor, propane equipped. Good condition, new tires, power take-off. Priced for quick sale. Mid-State Bottled Gas Co., New Haven, Kentucky. Telephone 66-J.

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FOR SALE: 1460 GALLON TWIN TANK with skirting and tank fittings, ready to mount on your truck, \$1225.00 plus Federal tax. Southwest Gas Equipment Co., Liberal, Kansas.

Classified

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FOR SALE: PROMPT DELIVERY FROM Oklahoma or Virginia 18,000 and 30,000 gallon L. P. gas storage tanks, U69 specifications. Mof-fitt Sales Agency, P. O. Box 183, Sanford, N. C.

CLOSING OUT 300 ICC 70-POUND CYLINders, with 10% outage valve and cap, \$17.00 each; 50 50-gallon bottles, \$37.50 each; 100 150-gallon propane tanks, \$90.00 each; 500 250-gallon propane tanks at \$175.00 each; 100 500-gallon propane tanks at \$175.00 each. Prices do not include State and inspection fee, if required, but are F.O.B. Okmulgee, Oklahoma. GAINES BUTANE EQUIPMENT COMPANY, Box 1749, Okmulgee, Oklahoma.

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With purchase of six (6) "Leak Detecto
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FOR SALE—IMMEDIATE DELIVERY! Eureka Smokehouse Burner Assemblies! For meat smoke houses using bottled gas. Completely automatic. Clean filtered smoke. Distributes beat uniformly. Low gas consumption. Automatic temperature and pilot control. Less product shrinkage. Easily installed. Write for descriptive pamphlet. Eureka Equipment Company, P. O. Box 396, Beloit, Wisconsin.

BAKER ALCOHOL PUMPS FOR HY-draulically injecting alcohol into any size cylinder against any propane pressure. Saves draining moisture-contaminated tanks, changing regulators! Pays for itself on several calls. Used by the leading gas dealers throughout the U. S. and Canada. A "must" tool for underground systems. Be ready for your next freeze-up. Order today. Send check or M.O. for \$44.95 for pump, complete with fittings. BAKER ENGINEERING, MALONE, N.Y.

FOR SALE: ALCOHOL INJECTORS FOR use with truck for injecting alcohol into domestic storage tanks. \$29.95. Southwest Gas Equipment Co., Liberal, Kansas.

CARBURETION — COMPLETE SALES and service. L. P. gas carburetion, Beam, Dix, J&S, Climax. Dealers discount. Southwest Gas Equipment Co., Liberal, Kansas.

STANDARD SMITH PUMPS OPERATE efficiently in Alaska—without fur linings yet! See our ad on page 108. Smith Precision Products Company.

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CODED HEADS AVAILABLE FOR IMmediate shipment, at sacrifice price subject to prior sale. All heads are new and in excellent condition with mill test reports available. 100 pcs ½" x 46" O.D. elliptical ASME type F&D with 3" K.R., 2" S.F. 42" D.R. Flame trimmed square, made of ASTM A-285 grade C flange quality steel. 112 pcs ½" x 46" O. D. hemispherical A-212 grade B firebox steel 22¾" radius, 0" S.F. Gas trim S.F. square. Write Box 145, BUTANE-PROPANE News, 198 S. Alvarado St., Los Angeles 57, Calif.

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The G-50 Bottled Gas Stock Tank Heater gives economy, perfect operation and elimination of condensation to the greatest possible degree because of the baffling system as shown in the cutaway section. These baffles reduce heat loss, prevent the burner from being blown out, and hold condensation directly above the burner where it is vaporized and passes out the stack.

It is simple to install as it clamps to the side of the tank with two screws. Both Automatic and Manual controls available. Weight approximately 70 lbs. Patent Pend.

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